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TURNER ON BIRDS

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TURNER ON BIRDS:

A SHORT AND SUCCINCT HISTORY

OF THE

PRINCIPAL BIRDS NOTICED BY PLINY AND ARISTOTLE,

FIRST PUBLISHED BY

DOCTOR WILLIAM TURNER,

1544.

EDITED,

WITH INTRODUCTION, TRANSLATION, NOTES, AND APPENDIX,

BY

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PREFACE.

IN translating this treatise it has been thought advisable to adhere as closely as possible to the original text of Turner, though in many places a more modern style of phraseology would doubtless have better pleased the ear of the non-scientific reader.

Not a few difficult points of interpretation have arisen in the course of the work, and the Editor welcomes this opportunity of expressing his gratitude to Professor Newton and to Mr R. D. Archer-Hind of Trinity College for the invaluable help that he has received from them in elucidating the hard passages and in revising the proofs. The Editor's thanks are also due to the Syndics of the University Press for undertaking the present publication.

9, HARVEY ROAD,
CAMBRIDGE.

July, 1903.

NOTE.

It may be remarked that the pages of Turner's work are not numbered in the original; but, for convenience of reference, the pagination is marked in the margin—the numbers being included in square brackets.

INTRODUCTION.

WILLIAM TURNER, author of the rare treatise here republished, was a native of Morpeth in Northumberland and is supposed to have been the son of a tanner of that town. By the aid of Thomas, the first Lord Wentworth, he was enabled to enter Pembroke Hall in the University of Cambridge, where he graduated B.A. and was elected a fellow of his College in 1530. At Pembroke he became acquainted with Ridley (who instructed him in Greek) and Latimer, two of the most earnest advocates of the Reformed doctrines, which he himself, both then and afterwards, strenuously embraced; but there is no need to dwell upon his theological views or the polemical works in which they were set forth.

While at Cambridge Turner was a zealous student of botany, and in 1538 published a *Libellus de re herbaria*. About two years later he left this University for Oxford, and soon after suffered imprisonment for preaching without a licence. On his release he quitted England, and travelled by way of the Netherlands and Germany to Italy, attending the botanical lectures of Luca Ghini at Bologna, where, or at Ferrara, he took the degree of M.D.

Thereafter he proceeded to Switzerland, forming a close friendship with the great naturalist Conrad Gesner of Zurich, Professor of Medicine and Philosophy in the School of that city, who held him in high esteem, and with whom he afterwards kept up a correspondence. He seems to have been at Basel in 1543, but early in 1544 he was at Cullen (Cologne), where he published not only the present work—dedicated

to Edward Prince of Wales (afterwards King Edward the Sixth)—but also edited the *Dialogus de Avibus* of his friend Gybertus Longolius of Utrecht, who died the preceding year. He pursued his botanical studies in several parts of Germany, as well as in the Netherlands, including East Friesland, for he became physician to the Count of Emden, and visited the islands of Juist and Norderney lying off the coast of that province.

On the death of King Henry the Eighth he returned to England, becoming chaplain and physician to Lord Protector the Duke of Somerset; but he lived at Kew, where he established a botanic garden. He was, moreover, incorporated M.D. of Oxford, and was appointed a prebendary of York. In 1550 the Privy Council sent letters for his election as Provost of Oriel College in Oxford, but the post had been already filled, and a similar disappointment awaited him in regard to the Presidency of Magdalen College in the same University. He then applied to Sir William Cecil for leave to return to Germany, but was soon after consoled by being appointed Dean of Wells, and, having in 1551 published the first part of his *New Herbal*, was during the next year ordained priest by his old friend Ridley, then Bishop of London.

On the accession of Queen Mary Turner had to vacate his deanery, and betook himself for safety once more to the Continent, visiting Rome and several places in Germany and Switzerland. When Queen Elizabeth ascended the throne he returned to England, and recovered his deanery, to which was attached the rectory of Wedmore in Somersetshire; but in 1564 he was suspended for nonconformity and seems to have come to live in London. In 1557 he had addressed a letter on English Fishes to Gesner, which was included in that naturalist's *Historia Animalium*; and in 1562 he published the second part of his *Herbal*, which he dedicated to Lord Wentworth, the son of his original benefactor. On the 7th of July 1568 Turner died at his house in Crutched Friars in the City of London, and was buried in the church of St Olave, Hart Street.

Turner married Jane, daughter of George Ander, Alderman of Cambridge, by whom he had issue Winifred, Peter and Elizabeth.

It must be understood that, his scientific work apart, nearly the whole of Turner's life was spent in religious controversy, and he published a considerable number of polemical works, the titles of which may be seen in the bibliography appended to the excellent 'Life' prefixed to Mr Jackson's facsimile reprint of the *Libellus de re herbaria*¹, whence all the particulars above given are taken. Other lists of Turner's works may be found in Cooper's *Athenae Cantabrigienses* (I. pp. 257—259) and the *Dictionary of National Biography* (LVII. pp. 365, 366).

Turner's object in writing the present treatise is fully set forth in his 'Epistola Nuncupatoria' prefixed to it. While attempting to determine the principal kinds of birds named by Aristotle and Pliny, he has added notes from his own experience on some species which had come under his observation, and in so doing he has produced the first book on Birds which treats them in anything like a modern scientific spirit and not from the medical point of view adopted by nearly all his predecessors; nor is it too much to say that almost every page bears witness to a personal knowledge of the subject, which would be distinctly creditable even to a modern ornithologist.

This knowledge is especially evident in his account of the habits of the Hobby (p. 19), Hen-Harrier (p. 19), Water-Ousel (p. 23), Moor-Buzzard (p. 33), Osprey (p. 37), Godwit (p. 45), Wheatear (p. 53), Sandpiper (p. 57), Fieldfare (p. 59), Cuckoo (p. 69), Black-headed Gull (p. 77), Black Tern (p. 79), Swallows (p. 101), Cormorant (p. 111), Shrike (p. 119), Redbreast and Redstart (p. 157); while his keen eye for distinctions is shown in his descriptions of the Black Cock and Grey Hen (p. 43), Godwit (p. 45), Tree-Creeper (p. 53),

¹ *Libellus de re herbaria novus*, by William Turner, originally published in 1538, reprinted in facsimile, with notes, modern names, and a Life of the Author, by Benjamin Daydon Jackson, F.L.S. *Privately Printed*. London: 1877.

Doves (p. 59), Lapwing (p. 77), Nutcracker (p. 95), Reed-Bunting (p. 103), Kites (p. 117), Bullfinch (p. 161) and others. He is most careful to tell us whether he observed the various species in England or abroad and their comparative abundance, and to note the breeding of the rarer species, such as the Spoonbill (p. 151), and Crane (p. 97) within our islands—that of the Crane being of special interest; the whole account of the Cuckoo (p. 69) is also most noticeable, as is that of the curious Walt-rapp (p. 95) of which Gesner writes as follows:

GESNER *De Corvo Sylvatico*¹ (p. 337).

AUIS, cuius hîc effigies habetur, à nostris nominatur uulgo ein *Waldrapp*; id est coruus sylvaticus...Sunt qui phalacrocoracem hanc auem interpretentur, quoniam & magnitudine & colore ferè coruum refert: & caluescit, ut uidi, cum adultior est. Turnerus Aristotelis coruum aquaticum & Plinij phalacrocoracem, & coruum sylvaticum nostrum auem unam esse arbitratur, tertium genus graculi. Coruus sylvaticus Heluetiorum, inquit, auis est corpore longo et ciconia paulò minore, cruribus breuibus, sed crassis: rostro rutilo, parum adunco (curuo) & sex pollices longo: alba in capite macula, & ea nuda, si bene memini....Sic ille.

Doubtless Turner's work is not free from errors, as in the case of the very old story of the breeding of the Bernicle-Goose (which, however, he was most loth to credit even when assured of its truth by an Irish Divine), in his confounding of the *Onocrotalus* with the *Ardea stellaris* and the Cornish with the Alpine Chough; yet these are but small blots on a very excellent treatise, which compares most favourably with other writings of his time.

It is quite evident from various passages that Turner was acquainted with Aristotle's works in the original Greek, and especially with his *History of Animals*; but he preferred quoting that author from the Latin translation of Theodorus

¹ Conradi Gesneri Tigurini medici & Philosophiæ professoris in Schola Tigurina Historiæ Animalium Liber III. qui est de Auium natura. Tiguri apud Christoph. Froshovervm, Anno M.D.LV.

Gaza of Thessalonica, the most celebrated Scholar of his day, who, fleeing from the sack of Constantinople, played a conspicuous part in the rise of the "New Learning," and after a course of teaching in Rome, entered successively the service of the Popes Nicholas the Fifth and Sixtus the Fourth, eventually dying in poverty in Lucania about 1484.

Exact transcription of a text was considered by no means necessary in those days: consequently we find many observations and explanations inserted in the text of Aristotle and Pliny, which had no place in the original¹.

Besides referring to Gesner, Turner mentions other learned men by name and occasionally quotes from their works; while his pages also inform us of many places that he visited.

The following excerpts from Gesner not only give instances of correspondence between him and Turner, but also shew that the former was accustomed to correct the latter from his wider knowledge of Ornithology.

De Branta vel Bernicla... (p. 107).

Idē [Turnerus] post librum suum de avibus publicatum, in epistola ad me data, Berniclas siue Brantas (inquit) ex putridis navis malis fungorum more nasci, minimè fabulosum esse doctorum & honestorum uirorum oculata fides mihi persuasit. Branta anserem palustrem ualde refert: his tamen notis ab eo differt. Branta breuior est, à collo quod rubescit nonnihil, ad medium usq; uentrem, qui candicat, nigra est. anserum more segetes populatur. In Vuallia (quæ pars est Angliæ) in Hibernia & Scotia aues istæ adhuc rudes & implumes in littore, sed non sine forma certa & propria auis passim inueniuntur. Et rursus, Præter brantam aut berniclam est alia auis, quæ originem suam arbori refert acceptam. Arbores sunt in Scotia ad littus maris crescentes, è quibus prodeunt ueluti fungi parui, primum informes, postea paulatim integram auis formam acquirunt, perfectæ tandem magnitudinis illæ, rostro aliquantisper pendent, paulò post in aquam decidunt, & tum demum uiuunt. Hoc tot tantæq; integritatis uiri affirmauerunt ut credere audeam, & aliis credere suadeã. Hæc ille. Eliota Anglus &c....

¹ The precise references to Aristotle and Pliny are now supplied, from the texts of Aubert and Wimmer, and Sillig respectively.

De Vulpansere (p. 156).

Chenalopex (inquit Turnerus Anglus) ab ansere & uulpe nomen habet...

Et rursus in epistola ad me, Vulpanserem Angli vocât a Bergander, nidulatur in cuniculorû foveis more uulpium, anate maior, minor ansere, alis ruffis. Eliota Anglus...

De Pygargo (p. 199).

Pygargum (inquit Turnerus) literatores quidam ineptè trappum à Germanis dictum (tardam, uel bistardam) interpretantur. Sed pygargus Anglorum lingua, nisi fallar, ernā vocatur, an erne. Ego ernam audio dici genus aquilę quod apud Frisios ad Oceanum Germanicum per hyemem degat, colore nigro, quod cornices quædam ut ex escarum eius reliquijs uictitent sequantur. Pygargus est forte quam Anglicè dicimus ringetayle, Eliota. Sed Turnerus ringtalum Anglis dictum ab albo circulo caudam circumeunte, buteone minore, subbuteonem Aristotelis esse suspicatur. Quod si minor est buteone, non poterit esse pygargus.

De Caprimulgo (p. 235).

[Having quoted Turner] Idem postea in litteris ad me missis, caprimulgum se uidisse scribit prope Bonnam (Germaniæ ciuitatem ad ripam Rheni, supra Coloniam) ubi à uulgo appellatur *Naghtrauen*, id est coruus nocturnus. Nos auis illius quæ Argëtinę vocatur *Nachtram*, corrupto forsā nomine, alibi *Nachtrap*, effigiem infrā ponemus cum historia nycticoracis.

De Carduele (p. 235).

...Auis Aristoteli thraupis, *θραυπις*, dicta à Gaza carduelis conuertitur: quod & Hermolao probatur. Turnero quidem non assenserim, qui chloridem nostram (*Grünling* uulgò vocant) thraupin esse conijcit.

De Rala terrestri (pp. 481—482).

...Perdix rustica vel rusticula Plinij (inquit Turnerus in epistola ad me) ab Anglis vocatur rala. Est autem rala duplex, altera cibus è ripis fluminum petit, altera degit in ericeto in locis sylvestribus. Aquaticam illam Coloniæ diu alui, & male uolare deprehendi, & egregiè pugnacem. Rostrum & crura erāt rubra, plumę multis maculis resperse.

Montana verò illa & syluestris crura habet multò breuiora aquatili, & plumas undiq̄ magis cinereas, sed rubra interim crura habet & rostrum. auis utraq̄ apud nos regium epulum (real Itali regium vocant, Galli royal, & forte hinc ductum est ralæ vocabulū. à colore crurum forte erythropus fuerit) vocatur. Hæc ille.

De Cinclo (p. 592).

Turnerus cinclum auem Anglicè interpretatur a water swallow, (quasi dicas hirundinem aquaticam,) Germanicè *ein Steinbeisser*, (sed nostri aliam auẽ, coccothrausten nostrum, *Steinbeisser* appellant.) Auicula (inquit) quam ego cinclum esse puto, galerita paulo maior est, colore in tergo nigro, uentre albo, tibiis longis, & rostro neutiquam breui. Vêre circa ripas fluminum ualde clamosa est & querula, breues & crebros facit uolatus. ¶ Huic Turneri descriptioni cognata uideri potest merula aquatica nostra: magis uerò illa, quam circa Argentoratum *Lyssklicker* appellant: quam non similem modo Turneri cinclo, sed prorsus eandem esse conijcio, cuius figuram sequens pagina cõtinet.

De Motacilla quam nostri albam cognominant (p. 593).

Turnerus in libro de Auibus Cnĩpológon Aristotelis (id est culicilegã interprete Gaza) hæc auem esse putat...[quotation]...Sed postea in epistola ad me, Culicilegam Aristotelis (inquit) in terra Bergensi uidi, tota cinerei ferè coloris est, & speciem habet pici Martij, illa uerò quam culicilegam esse putabã, est uariola nisi fallor.

De Nycticorace (pp. 602—604).

TURNERUS in litteris ad me missis caprimulgum auem se uidisse scribit prope Bonnam (Germaniæ ciuitatem ad ripam Rheni, supra Coloniam,) ubi à uulgo appellatur *Naghtrauen*, id est coruus nocturnus. Nos in præcedente pagina effigiem adiecimus auis quæ circa Argentoratum, ut audio *Nachtram*, alibi *Nachtrab* nominatur. quæ tamen neq̄ caprimulgus neq̄ nycticorax mihi uidetur. [The figure is of the Night-Heron, unmistakably.]

De Onocrotalo (pp. 607—608).

Onocrotalus Machliniensis, quæ *Vogelhain* à Brabantis uocatur, quinquaginta annis, ut ipsi ferunt, Machliniæ uixit, cygno maior est. pennę foris albicant, in fundo uerò rubrum

quiddam ostendunt. collum duas spithamas longum est, aut paulò longius, rostrum, quod rubrum habet, dodrantali longitudine est & quatuor uncias longius, & in fine hami propemodum more incuruum & uersus finem latius latiusq, proturbatur. crura anserinis similia, breuia, nimirum pro magnitudine tanti corporis: in pectore magnum habet ueluti sacculum protuberantem. Alis est longissimis, & ipsis in summa extremitate nigris, Guil. Turnerus in epistola ad me....

Bononiæ uisus est mihi onocrotalus (uerba sunt ex epistola Angli cuiusdam amici ad me) plumis cinereis tectus, cygno maior, palmipes, capite mergi, rostro quatuor palmas ferè longo, & in fine adunco, collo deplumi, amplissimo, ut anatem deuorare posset. Captam aiebāt in lacu Benaco....

Solis uicitat piscibus, & bis tantum anno bibit. Turnerus...Pisces præsertim anguillas audivissimè uorat botaurus auis, Turnerus. idem amicus quidam de onocrotalo ad me scripsit. ego onocrotalum quidem hoc facere non dubito: de botauo dubitari potest, præsertim cum multi etiã non indocti cum onocrotalo eum confundant.

De Perdice (p. 644).

...Quæ Aristoteles & Ouidius de perdice scribunt, omnia nostræ pernici uulgari conueniunt, nempe uolandi nidulandiq, ratio, astutia, circa prolem sollicitudo, corporis grauitas, & uocis stridor, à quo etiam nomen accepisse uidetur, Turnerus in epistola ad nos.

The 'Avium præcipuarum...Historia' was reprinted by Dr George Thackeray, Provost of King's College, Cambridge, in 1823; but the reprint is as rare as, if not rarer than, the original. Two copies are in the Library of King's College.

The following is a list of the Birds determined by Turner.

ALAUDIDÆ. <i>Alauda arvensis.</i>	ALCEDINIDÆ. <i>Alcedo ispida.</i>
Lerk or Laverock. German	Kynges fissher. G. <i>Eisvogel,</i>
<i>Lerch</i> , p. 80.	pp. 18—22.
<i>A. arborea.</i> Wodlerck, p. 80.	[Turner recognised two kinds
<i>A. sp.?</i> Wilde Lerc or Heth	of Kingfishers described by
Lerk. G. <i>Heid Lerch</i> , p. 80.	Aristotle and Pliny, but
<i>Galerita cristata.</i> [No English	does not state what they
name.] G. <i>Copera</i> , p. 80.	are].

- ANATIDÆ. *Anas boscas*. Duck, pp. 22, 48.
Anser (2 species.) Gose. G. Ganss, p. 22.
Bernicla leucopsis. Brant or Bernicle Gose, p. 26.
Cygnus olor. Swan. G. Swän, p. 120.
Mareca penelope. Wigene, p. 48.
Nyroca ferina. Pochard, p. 48.
Querquedula crecca. Tele, p. 48.
Tadorna cornuta. Bergander, p. 24.
- ARDEIDÆ. *Ardea* sp.? (white). Cryel or Dwarf Heron, p. 38.
A. cinerea. Heron. G. Reyger, p. 36.
Botaurus stellaris. Bittour, Buttor, Buttour, or Myre Dromble. G. Pittour, Rosdom, pp. 38, 40, 122.
- CAPRIMULGIDÆ. *Caprimulgus europæus*. [No English name], p. 48.
- CERTHIIDÆ. *Certhia familiaris*. Creper, p. 52.
- CHARADRIIDÆ. *Charadrius pluvialis*. Pluver. G. Pulver, p. 132.
Vanellus vulgaris. Lapwing. G. Kywit, pp. 76, 174.
- CICONIIDÆ. *Ciconia alba*. Stork. G. Storck, Sax. Ebeher, p. 54.
- CINCLIDÆ. *Cinclus aquaticus*. Water-Craw, p. 22.
- COLUMBIDÆ. *Columba* sp.? Dove. G. Taube, Sax. Duve, p. 59. [Venice Dove, p. 62.]
C. ænas. Stocdove. G. Holtztaube, p. 60.
C. palumbus. Coushot or Ringed Dove. G. Ringel Taube, p. 60.
Turtur communis. Turtel Duve, p. 60.
- CORVIDÆ. *Corvus corax*. Raven. G. Rabe, p. 64.
C. cornix. Winter Crow, p. 64.
C. corone. Crow. G. Krae, Kraeg, p. 64.
C. frugilegus. [No English name], p. 64.
C. monedula. Caddo, Chogh, Ka. G. Döl, Sax. Älke, p. 92.
Garrulus glandarius. Jay. G. Mercolphus, p. 144.
Nucifraga caryocatactes. [No English name.] G. Nousbrecher, p. 94.
Pica rustica. Py, Piot. G. Elster, Atzel, pp. 142, 144.
Pyrhacorax graculus. Cornish Choghe. G. Bergdöl, p. 90. [Confounded with *P. alpinus*.]
- CUCULIDÆ. *Cuculus canorus*. Cuckow, or Gouke. G. Kukuck, p. 66.
- CYPSELIDÆ. *Cypselus apus*. Chirche Martnette. Rok Martinette. G. Kirch Swalbe, pp. 100, 102.
C. melba. Great Swallow. G. Geyr Swalbe, p. 102.
- FALCONIDÆ. *Accipiter nisus*. [No English name], p. 66.
Aquila sp.? Right Egle. G. Edel Ärn, p. 36.
Astur palumbarius [?] Sparhauc. G. Sperwer, p. 18.
Buteo vulgaris. Bushard, p. 16.
Circus æruginosus. Balbushard, p. 32.
C. cyaneus. Hen-Harroer, Ringtale, p. 18. [Turner calls the male Hen-Harroer, the female Ringtale, erroneously considering them two species.]
Falco æsalon. Merlin. G. Smerl, p. 16.

- FALCONIDÆ. *F. subbuteo*. Hobby, p. 18.
Gypaëtus barbatus [?]. [No English name], p. 128.
Haliaëtus albicilla. Egle or Erne. G. *Ärn, Adler*, p. 30.
Milvus ater. [No English name], p. 116.
M. iclinus. Glede, Puttok, or Kyte. G. *Weye*, p. 116.
Tinnunculus alaudarius. Kastrel, Kistrel, or Steingall, p. 166.
- FRINGILLIDÆ. *Carduelis elegans*. Goldfinche. G. *Distelfinck, Stigelitz*, pp. 40, 50.
C. spinus. Siskin. G. *Zeysich, Engelchen*, p. 108 (cf. p. 50).
Emberiza citrinella. Yellowham, Yowlryng. G. *Geelgorst*, p. 106.
E. miliaria. Bunting. G. *Gersthammer*, pp. 134, 158.
E. schœniolus. Rede Sparrow. G. *Reydt Müss*, pp. 102, 134.
Fringilla cœlebs. Chaffinche, Sheld-appel, Spink. G. *Büchfink*, p. 72.
F. montifringilla. Bramlyng. G. *Rowert*, p. 72.
Ligurinus chloris. Grenefinche. G. *Kirsfincke*, pp. 104, 106.
Linota cannabina? Linot. G. *Flasfinc*, pp. 50, 158.
Passer domesticus. Sparrow. G. *Müsche, Spätz, Lüningk*, Sax. *Sperlingk*, p. 132.
Pyrrhula europæa. Bulfinche. G. *Blödtfinck*, p. 160.
Serinus canarius. Canary Bird, p. 108.
- GRUIDÆ. *Grus communis*. Crane. G. *Krän, Kränich*, pp. 94, 96.
- HIRUNDINIDÆ. *Cotile riparia*. Bank Martnet. G. *Über Swalbe, Speiren*, p. 102.
Hirundo rustica. Swallowe. G. *Schwalb*, Sax. *Swale*, pp. 96, 100, 102.
- IBIDIDÆ. *Comatibis eremita*. [Red-cheeked Ibis]. G. *Waltrap*, pp. 92, 94.
- LANIIDÆ. *Lanius excubitor*. Schric, Shrike, or Nyn Murder. G. *Nuin Mürder, Neun Mürder*, pp. 116, 118, 168.
Lanius minor? [No English name], p. 168.
- LARIDÆ. *Hydrochelidon nigra*. Stern, p. 78.
Larus sp.? [Grey Gull.] Se Cob or See Gell, p. 78.
L. sp.? [White Gull.] White Semaw. Se Cob or Seegell. G. *Wyss mewe*, pp. 74, 78.
L. ridibundus. White Semaw with a blak cop, pp. 74, 76.
- MEROPIDÆ. *Merops apiaster*. [No English name], p. 112.
- MOTACILLIDÆ. *Anthus pratensis*. Titlyng, p. 68.
Motacilla lugubris or *M. alba*. Wagtale. G. *Wasser Steltz, Quikstertz*, p. 64.
- ORIOOLIDÆ. *Oriolus galbula*. Witwol. G. *Witwol, Weidwail, Kersenrife*, pp. 148, 172, 174.
- OTIDIDÆ. *Otis tarda*. Bistard or Bustard. G. *Träp* or *Trap Ganss*, pp. 130, 166.
- PANDIONIDÆ. *Pandion haliaëtus*. Osprey. G. *Vishärn*, pp. 34, 36.
- PARIDÆ. *Parus cœruleus*. Non. p. 132.

- PARIDÆ. *P. major*. Great Titmouse, or Great Oxei. G. *Kölmeyse*, p. 130.
P. palustris or *P. ater*. Less Titmouse. G. *Meelmeyse*, p. 130.
- PHALACROCORACIDÆ. *Phalacrocorax carbo*. Cormorant. G. *Dücher*, p. 110.
P. graculus? Douker (pt), Loun, *Dücher* (pt.), p. 176.
- PHASIANIDÆ. *Attagen* [possibly *Bonasa sylvestris*, the Hazel Grouse], pp. 42, 44.
Gallus ferrugineus (domesticus). Cok, Hen. G. *Hän, Hen, Sax. Hön*, p. 82.
Numida meleagris. [No English name?] Kok of Inde? pp. 82, 86, 140.
Pavo cristatus. Pecok. G. *Pffaw, Sax. Pagelün*, p. 136.
Perdix cinerea. Pertridge. G. *Velt hön, Raphön*, p. 138.
Phasianus colchicus. Phesan. G. *Fasant, Fasian*, p. 140.
- PHENIX. [No English name], p. 140.
- PICIDÆ. *Dendrocopus major*? Specht, or Wodspecht. G. *Elsterspecht*, pp. 146, 148.
Gecinus viridis. Hewhole, Huhol, Raynbird? G. *Grünspecht*, pp. 88, 112, 114, 146, 148.
Iynx torquilla. [No English name], pp. 146, 148.
Picus martius. [No English name]. G. *Craspecht*, p. 148.
- PLATALEIDÆ. *Platalea leucorodia*. Shovelard. G. *Lester, Löffel Ganss*, pp. 38, 150.
- PODICIPEDIDÆ. *Podiceps minor*, Douker (pt), *Dücher* (pt), p. 176.
- PROCELLARIIDÆ. *Puffinus* sp.? Bird of Diomedæ, p. 70.
- PSITTACIDÆ. Parrot. Popinjay. G. *Papegay*, p. 150.
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- STRUTHIONIDÆ. *Struthio camelus*. Oistris. G. *Strauss*, p. 164.
- STURNIDÆ. *Sturnus vulgaris*. Sterlyng. G. *Stär, Stör*, p. 164.
- SULIDÆ. *Sula bassana*. Solend Guse, p. 28.
- SYLVIIDÆ. *Accentor modularis* (?) Hedge-sparrow, or Dike Smouler. G. *Grassmusch, Koelmussh*, p. 136.
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- SYLVIIDÆ. *Erithacus rubecula*. Robin Redbreste. G. Rötbrust, Rötkelchen, p. 154.
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A V I V M
PRAECIPV

A R V M, Q V A R V M
APVD PLINIVM ET ARI-
stotelem mentio est, breuis &
succincta historia.

*Ex optimis quibusque scripto-
ribus contexta, scholio illu-
strata & aucta.*

*Adiectis nominibus Græcis, Germanicis &
Britannicis.*

*Per Dn. Guilielmum Turnerum, artium & Me-
dicinæ doctorem.*

*Coloniæ excudebat Ioan. Gymnicus,
Anno M. D. XLIIII.*

DE HISTORIA AVIUM.

Epistola Nuncupatoria

[p. 3] Illuſtriffimo VValliaë principi, Eduuardo filio hæredi, fereniffimi & potentiffimi Henrici VIII. regis Angliæ, Franciaë, & Hiberniæ, Guilielmus Turnerus S. P. D.

PRUDENS admodum, & ſi quid ego intelligo (illuſtriffime princeps) neceſſaria imprimis regij prophetæ fuit admonitio, qua reges, principes & iudices terræ, ut intelligerent, & eruditionem conſequerentur, admonuit. Nam ut ſummus ille rerū architectus Deus optimus maximuſq; caput ſuper omnes reliquas corporis partes in homine, qui perfectiffimè in ſe [p. 4] Reipublicæ ſimulachrum gerit, collocavit, & omnes quinque ſenſus ſimul in eo reſepuit, ut pro reliquis omnibus mēbris (quibus ſolus tactus eſt conſeſſus) uideret, audiret, guſtaret & odoret, & eorum ſaluti conſuleret : ita principem Reipublicę, corpori ex multis membris conflato, ueluti caput præfecit, ut prudentia, eruditione, & ſenſibus ſuis non tam exterioribus, quã interioribus, totius Reipublicæ commodis & ſaluti proſpiceret. In pedibus uiſum, in tibijs auditum, in manibus olfactum, in brachijs odoratum nemo requirit: ſed hæc omnia in capite requiruntur.

Epistle Dedicatory

To the most illustrious Prince of Wales, Edward, son and heir of the most serene and mighty Henry VIII, King of England, France and Ireland, William Turner wishes long life and health.

EXCEEDING wise, and if I understand aright, necessary above all things, most illustrious Prince, was the warning of the royal prophet, in which he admonished kings, princes, and judges of the earth that they should have understanding and seek learning. For, as that architect supreme of the universe, God most good and great, placed the head above all the remaining parts of the body in man, who in himself shews forth the image of a most perfect State, and stored up in it all the five senses at once, that it should see, hear, taste, and smell for all the remaining members (to which touch alone has been allowed), and should consult for their well-being; so he hath set the Prince, as it were a head, over the State, a body welded together of many members, that he should provide for the advantage and well-being of the whole State by his wisdom, learning and senses, not so much external as internal. No one demands sight in the feet, hearing in the legs, smell¹ in the hands, or smell in the arms; but all these things are necessary in the head.

¹ This should probably be "taste" (gustum).

Quum igitur tot sensus in capite uni tantū corpori præfecto requirantur: quot sensus, quantum sapientiæ & eruditionis ab eo capite exi-
 [p. 5] guntur, cui plus quàm trecentorum milium corporum præfectura committitur? Quòd si quis forsan respondeat, non in principe, sed in ijs solis, qui illi à consilijs sunt, eruditionem & prudentiam requiri: hunc ego dignum cenferē, qui pro tali responso, omnibus sensibus, excepto tactu, orbatus in media sylua uepribus & spinis densa, caueis & fossis formidabili, quatuor ducibus comitatus statueretur, nobis dicturus, nū proprijs malit uti sensibus an alienis? & num tutius illi sit, ducum suorum incertorum sensibus, an proprijs duci? & qua ratione cæcus & surdus odoratu & gustu destitutus ipse, cęci'ne an uidētes sui sint duces, dignoscere possit?

In consiliarijs summam prudentiam & eru-
 [p. 6] ditionem non uulgarem requiri, non diffiteor: uerū non in ijs solis, nam si illi, qui principi sunt à consilijs, ad tempus bene consulant, & postea in ipsius perniciem malè suadeant, ut Absaloni Achitofelem fecisse legimus: quomodo perniciosum illorum consiliū ipse subodorabitur & depræhendet, nisi eruditione & prudentia consiliarios suos aut superet, aut saltem æquet? Quare nō in consiliarijs tantū, sed in principe ipso eruditio & sapiētia requiruntur. Non defunt, qui satis esse principi existimant, quo cæteris mortalibus præstet, si regio uestitu, diuitijs, copijs, scitè pulsando testudinem, & tela dextrè uibrando, subditis suis præluceat: uerū fortif-
 [p. 7] simi quiq; & sapientissimi reges longè diuersum

Inasmuch therefore as so many senses are requisite in the head, which is set over one body alone, how many senses and what a wealth of wisdom and learning are demanded from that head, to whom more than three hundred thousand bodies are given in charge? But if any should chance to answer that learning and wisdom are needed not in the Prince, but only in those who are his councillors, I should consider it fitting that he for such a reply should be set, accompanied by four guides, in the midst of a wood tangled with briars and thorns, and dangerous with its pits and ditches, deprived of all his senses, except that of touch, and should tell us whether he preferred to use his own senses or those of others: or whether it would be safer for him to be led by the senses of his doubting guides or by his own; and in what way he, being blind and deaf, and destitute of smell and taste, could determine whether his guides were blind or able to see.

I fail not to confess that the highest wisdom, and learning of no common sort, are requisite in councillors, but not in them alone; for if they who are the advisers of the Prince, give good counsel for the time, and afterwards prompt him ill to his destruction, as we read that Achitofel did in the case of Absalom, how shall he smell out and detect their fatal advice, unless he either excels or at least equals his councillors in learning and wisdom? Wherefore not only in councillors but in the Prince himself are learning and wisdom requisite. There are not wanting those who think it enough for a Prince, as matters in which he should surpass other mortals, if he outshines his subjects in royal garb, in riches, in resources, in cunningly striking the lyre, and in skilfully throwing the spear; but all the bravest and wisest kings have

fenferunt. Nã Mithridates rex Põti & Bithy-
nię, se regnorum fuorum caput effe intelligēs, et
tot corporibus, quot pręerat, unicã uernaculã
fuam linguã minimè fufficere, uiginti duas
linguas gētium, quas sub ditione fua habuit, ita
perfectè didicit & percalluit, ut uiginti illarum
gentium uiris fine interprete promptè responde-
rit, & fua cuique lingua non fecus atque gentilis
fuiffet, locutus fuerit. Idē rerum abditas natu-
ras ita perueftigauit, & in re medica ita fœliciter
fuit uerfatus, ut aduerfũs lethalia uenena anti-
dotum, quod hodie etiamnum ab eo nomen
fortitum, Mithridatium appellatur, fuo Marte
inuenerit. Alexander ille Macedonum rex, tam
[p. 8] naturæ quàm fortunæ dotibus iure fufpici-
endus, tanto bonarum artium & philofophiæ
potiffimum ftudio flagrauit, ut etiã in zelotypiam
quandam literariam inciderit. Nam is cùm
omnem propè Afiam armis & exercitu teneret,
ubi primũ Ariftotelem libros fuos de auscultatione
phyfica inuulgaffe acceperat, in tantis
negocijs cum Ariftotele, miffa ftatim epiftola
de editis libris, his uerbis expoftulabat: Quòd
disciplinas ἀκροαματικάς edidifti, non rectè fe-
cifti. nam qua alia re cæteris præftare poterimus,
fi ea, quæ abs te accepimus, omnium prorfus
fuerint communia? Quippe ego doctrina
anteire malim, quàm copijs atq; opulentijs. Hęc
Alexander.

Diuino approbatus oraculo rex ille Daud,

thought quite differently. For Mithridates, king of Pontus and Bithynia, understanding that he was the head of his domains, and that his native tongue alone was by no means sufficient for the numerous bodies, over which he reigned, learned so perfectly and understood so thoroughly the twenty-two tongues¹ of the nations, which he had under his sway, that he gave immediate answers to twenty men of those nations without an interpreter, and spoke to each in his own tongue just as if it had been native to him. He also so thoroughly traced out the hidden natures of things, and occupied himself to such good purpose in the science of medicine, that he discovered by his own exertions an antidote to deadly poisons, which even to-day is called Mithridatium, a name derived from him. The great Alexander, king of the Macedonians, rightly renowned as much for the gifts of nature as for those of fortune, burned with so great a zeal for the noble arts, and philosophy in particular, that he even descended to a sort of literary jealousy. For though he was holding almost all Asia by force of arms and his troops, when first he heard that Aristotle had made public his books 'De Auscultatione Physica,' in the midst of such great concerns he expostulated with Aristotle in the following words, a letter having been at once sent off concerning the publication of the books: "In that you have published your teachings called *ἀκροαματικά* you have not done rightly; for in what other thing shall I be able to excel the rest, if those things, which I have heard from you, become henceforth the common property of all? For I should prefer to stand first in learning rather than in resources and wealth." Thus said Alexander.

The great king David, approved by the voice of

¹ 'Duas' is perhaps a misprint for 'duarum.'

[p. 9] qui & propheta fuit diuino numine adflatus, atq; ideo qd regi maximè necessariū foret, cognoscens, ante omnia literas, nempe sacras expetiuit, ut sibi tēperare non potuerit, quin diceret, Benedictus es domine, doce me iustificationes tuas, in uia mandatorū tuorū delectatus sum, sicut in omnibus diuitijs : in mandatis tuis exercebor, & considerabo uias tuas. Reuela oculos meos, & considerabo mirabilia de lege tua. Bonitatē & disciplinā & scientiam doce me : ego autem in toto corde meo scrutabor mandata tua. Nisi quòd lex tua meditatio mea est, tunc fortè perissem in humilitate mea. Quàm dulcia faucibus meis eloquia tua, super mel ori meo. Bonum mihi lex oris tui super milia auri & argēti.

[p. 10] Lucerna pedibus meis uerbum tuum, & lumen femitis meis. Declaratio sermonum tuorum illuminat, & intellectum dat paruulis. Hactenus rex Dauid, & pace & bello omnium regum illustrissimus.

Rex Solomon huius filius, omniū, quos unquā terra genuit, sapientiss. cuius unius auctoritati plus tribuendum est, quàm sexcentis adulatoribus diuersum suadētibus, cū totius orbis conditor & omnium bonorum largitor Deus pater, illi, quod sibi optimum, & ex usu suo maximè fore iudicaret, ultro offerret, & poscenti mox se daturū promitteret, ad hunc modum, ut diuinæ literæ testantur, respondit. Nunc domine Deus, tu me regnare fecisti seruum tuum pro

[p. 11] Dauide patre meo, ego autem sum puer paruulus, & ignorans ingressū, & introitū meū : & seruus tuus in medio est populi, quem elegisti,

God, who was moreover a prophet filled with divine inspiration, and therefore well aware of what was especially necessary for a king, sought before all things learning, and that of course divine, so that he was unable to restrain himself from saying "Blessed art thou, O Lord, teach me thy righteousness, I have delighted in the way of thy commandments, as in all riches: in thy statutes will I exercise myself, and I will consider thy ways. Open thou mine eyes, and I will consider the wonderful things of thy law. Teach me goodness and instruction and learning; but with my whole heart will I examine thy commandments. Unless thy law had been my meditation, then should I perchance have perished in my low estate. How sweet are thy sayings to my mouth, better than honey to my lips. The law of thy mouth is a good to me beyond thousands of gold and silver. Thy word is a lantern unto my feet, and a light unto my paths. The telling of thy discourses giveth light and understanding to babes." Thus far king David, the most illustrious of all kings both in peace and war.

King Solomon, his son, the wisest of all that earth ever bore, to whose single authority more weight is to be given than to six hundred flatterers persuading to a different course, when God the Father, maker of all the world and giver of all good things, of his own accord offered to him what he should judge to be best for himself and for his greatest advantage, and promised that he would grant it at once on his request, replied in this manner, as the Scriptures testify. "Now, O Lord God, thou hast made me, thy servant, to reign in the room of David my father, but I am a little child, and know not my coming in and entering; and thy servant is in the midst of the people whom thou hast chosen, an in-

populi infiniti, qui numerari & supputari non potest præ multitudine. Dabis ergò seruo tuo cor docile, ut populum tuum iudicare possit, & discernere inter bonum & malum: quis enim potest iudicare populum istum, populum tuum hunc multum? Huc usq; Solomon, qui in philosophia tam diuina quàm humana ita non multis pòst annis profecit, ut de stirpibus à cedro usq; ad hiffopum disputauerit, & de bestijs, uolucris, reptilibus, & piscibus differuerit.

Quare, prudentissimi quique principes, & [p. 12] fortissimi, nõ fatis habebant, subditos suos diuitijs, honoribus, uestitu, incesu, & bellica gloria excellere, nisi literis, linguis, philosophia tam diuina quàm humana insuper multum superarent, & à tergo relinquerēt. Quod pater tuus omnium regum, qui hodie uiuunt, eruditissimus, fatis ut regem tantum decet, intelligens, & cui Reipub. gubernaculum committitur, quàm necessaria literæ & philosophia sint, prudenter secum perpendens, liberos suos semper eruditissimis quibusque præceptoribus commisit. Duci enim Richmundiæ, piæ memoriæ, fratri tuo Georgium Folberium præceptorē olim meum, uirum insigniter doctum, et mirum rectè instituendæ iuuentutis artificem, & tibi nũc uirum longè [p. 13] doctissimum (uti audio) præfecit.

Qua de causa, illustrissime & optime princeps, sapiētissimorum & fortissimorum regum exempla secutus, atq; potentissimi & eruditissimi patris tui consilio obtemperans, qui te ad meliores imbibendas literas, nunquam non inuitat, incitat & hortatur, dum ætas tua adhuc tenera

numerable people, a people which cannot be numbered or counted for their multitude. Thou shalt give therefore to thy servant a heart that may be taught, that he may be able to judge thy people, and to discern between good and evil: for who is able to judge this people, this great people of thine?" Thus far spoke Solomon, who not many years afterwards so excelled in philosophy both divine and human that he disserted about plants from the cedar even to the hyssop, and discoursed of beasts, birds, reptiles, and fishes.

Wherefore all the most wise and brave Princes have not considered it sufficient to surpass their subjects in riches, honours, garb, gait, and warlike glory, unless beyond this they excelled them far in learning, tongues, and philosophy both divine and human, and left them in the rear. And this your father, the most learned of all the kings who are alive at the present day, well understanding, as becomes so great a king, and one to whom the helm of the State is entrusted, wisely pondering in his mind how necessary learning and philosophy are, always committed his children to the care of the most learned of instructors. For over your brother the Duke of Richmond, of pious memory, he set Georgius Folberius, once my tutor, a man of remarkable learning, and a wondrous handicraftsman for rightly instructing youth, and now over you (as I hear) a man by far the most learned of all.

Wherefore, most illustrious and worthy Prince, following the steps of the wisest and bravest kings, and yielding to the advice of your most powerful and learned father, who so constantly invites you to the draught of superior learning, spurs you on, and exhorts you, while your years are yet tender and

est, & literarū capacissima, omne genus bonarum literarum obuijs ulnis amplectere, difce, & imbibe, & exantlati in bonas literas laboris olim te minimè pœnitebit. Sed ut ad propositam metam minori cum negotio possis peruenire, libellum De historia auium, in quo Latinis nominibus Græca, Germanica & Britànica in [p. 14] gratiam tuam appofui, ex Aristotele & Plinio, & optimis quibusq; scriptoribus contexui. Hunc ego nominis tui celebritati dedico, & dono: etiã atq; etiã te obtestans, ut hoc meum qualecunq; munusculum æqui boni'q; confulas. Quod si te facturum intellexero, & hunc libellum figuris & auium moribus, & medicinis auctum, & de herbis alium etiam librum, breui, uolente Deo, in lucem emittam. Vale. Dominus Iesus
te nobis sanctissimis moribus
institutum, & optimis literis imbutum, quàm diu-
tissimè inculumem
conferuet.

Coloniæ 5. Idus Februarij,
Anno M.D.XLIIII.

most amenable to learning, embrace with open arms every kind of noble literature, learn and drink it in, and hereafter you will surely not repent of the labour expended upon this noble literature. But that you may be able to reach with less trouble the goal that is laid before you I have compiled from Aristotle and Pliny and all the best writers this little book on 'The History of Birds,' in which I have placed for your pleasure the Greek, German, and British names side by side with the Latin. This I dedicate and offer to the glory of your name: again and again praying you to receive this little gift, such as it is, with fair and favourable consideration. And if I understand that you will do this, I will shortly, God willing, bring to the light of day a further edition of this little book with figures of the birds, their habits, and curative properties, as well as another book on plants. Farewell. May the Lord Jesus preserve you as long as possible unharmed to us, trained in most holy ways and filled with the best of learning.

Cullen [Cologne]. February 9th, 1544.

ARISTOTELES¹.

Buteo.

Aefalo.
Circus.

Percae
Fringillarij.
Rubetarij.

[p. 16]

ACCIPITRUM genus præcipuum Buteo est, Triorcha² à numero testium nuncupatus: secundum aefalo, tertium circus. Stellaris autem, palumbarius, & pernix³ differunt. Appellantur subuteones, qui latiores⁴ sunt: alij percae & fringillarij uocantur: alij læues⁵ & rubetarij, qui abundè uiuunt⁶, atque humiuolę sunt. Genera non pauciora quàm decem esse accipitrum aliqui prodiderunt, quæ modo quoq; uenandi⁷ inter se diffident. Alij enim columbam humi confidentem, rapiunt, uolantem non appetunt: alij super arborem, aut tale quid conscendentem, uenantur: sin humi est, aut uolat, non inuadunt. Alij neq; humi, neq; in sublimi manentē, adgrediuntur, sed uolantem capere conantur. Fertur etiam à columbis quodq; accipitrū genus cognosci. Itaq; cū accipiter prouolat, si sublimipeta est, manent quo constiterunt loco: sed si humipeta qui prouolat, est, non manēt, sed continuò auolant.

¹ *Hist. An.* Bk IX. 128—130.

² Aristotle has simply *κράτιστος μὲν ὁ τριόρχης*.

³ Other readings are *περνίς, πέρνης, πτέρνης*.

⁴ Instead of *πλατύτεροι*, some texts have *πλατύπτεροι*, which would make better sense and mean 'broad-winged.'

⁵ *λείοι*, or according to another text *έλειοί*.

⁶ The word *εύβιάτατοι* here, and corresponding expressions throughout the passages quoted in this book, might possibly mean that the birds in question have no particular faults, or are of ordinary respectability. Gaza, however, followed as usual by Turner, seems to have interpreted the word rightly here.

⁷ These three words are not found in Aristotle.

Of the ten kinds of Accipitres.

ARISTOTLE.

THE chief kind of Accipitres is Buteo, which from the number of its testicles is named Triorcha, *Æsalo* is the second, *Circus* is the third. Again *Stellaris*, *Palumbarius*, and *Pernix* differ. Those which have more breadth are called *Subuteones*; other kinds are named *Percæ* and *Fringillarii*; others *Læves* and *Rubetarii*, which get their living most easily, and fly near to the ground. Some have asserted that there are no fewer than ten kinds of the Accipitres which differ from each other in their several modes of hunting. For some sorts seize a Dove when sitting on the ground, but do not touch one flying; others seek their prey when perched upon a tree, or such like, but if it be on the ground or flying do not attack it. And others seize it neither on the ground, nor when resting aloft, but strive to catch it flying. Moreover it is said that each kind of Accipitres is recognised by Doves. So, when the Accipiter comes forth, if it be such as hunts on high, they stay where they have settled, but, if that which comes be such as takes them on the ground, they stay not, but forthwith fly off.

PLINIUS¹.

Accipitrum genera sedecim inuenimus. Ex
 Circus. ijs circon claudum altero pede, prosperrimi
 †pecuarię augurij nuptialibus negocijs, & †pecuniarię rei².
 Buteo. in augurijs Phœmone dedit: buteonē hunc
 appellat Rom. Aefalona Græci uocant, qui
 folus omni tēpore apparet. Cæteri hyeme
 Cymindis. abeunt. Nocturnus accipiter cymindis uocatur,
 [p. 17] rarus etiam in fyluis, interdiu minùs cernens:
 bellum internecinum cum aquila gerit: cohæ-
 rentesq; sæpè præhenduntur. Hæc Plinius.

Quauquam Aristoteles decem esse accipitrum genera tradat, & Plinius sedecim: neuter tamen horum hæc ita distinxit genera, & descripsit, ut procliue sit lectori suum cuique peculiare nomen ex illorum præscriptis imponere. Quare à me nemo horum exactam differentiam, & cuiusque nomen Britannicum aut Germanicum cum Latino & Græco coniunctum, iure poterit exigere. Ego tamen, quod nomen Britannicum, cuiq; Latino imponendum esse censeo, lectorem minimè celabo.

Buteo. *Buteo τριόρχης Græcè dictus, Anglorum busharda est, nisi fallar: nam miluo magnitudine æquiparatur, semperq; ipse cernitur, qualem Aristoteles octauo libro de historia animalium buteonem describit.*

Aefalo. *Αισάλων, quoniam iuxta Plinij sententiam omni tempore apparet, & inter minores accipitres sola merlina siue smerla, semper adpareat, mihi Anglorum merlina, & Germanor. smerla esse uidetur.*

¹ *Hist. Nat. Lib. x. cap. viii.*

² If the reading pecuarię is accepted, the meaning would appear to be 'for cattle breeding.'

PLINY.

Of Accipitres we have found sixteen kinds. Circus among them, halting in a foot, of lucky omen in nuptial affairs and money business. Triorches next, to which Phœmone¹ gave the foremost place in auspices, named from the number of its testicles: the Romans call it Buteo and the Greeks Æsalon: it is the only kind which may be seen at every time. The rest leave us in winter. An Accipiter that flies by night is called Cymindis; it is rarely found in woodlands, in the day it scarce can see: it wages deadly warfare with the Aquila, and they are often captured clinging to each other. So far Pliny.

Though Aristotle may set forth that there are ten kinds of Accipitres, and Pliny that there are sixteen, yet neither of them has distinguished or described the kinds so that it may be easy for a reader to apply to each its proper name from their accounts. So no one can in fairness claim from me their exact difference, nor yet the British or the German name of each, together with the Latin or the Greek equivalent. I will, however, surely not conceal from you, my reader, what I think to be the British name, and to which Latin name it ought to be applied.

Buteo, called in Greek *τριόρχης*, if I do not err, is the Buzzard of the English, for it is compared with *Milvus* as to size; moreover it is seen at all times, and is such a bird as Aristotle makes his Buteo in the eighth book of the 'History of Animals.'

Αισάλων, since in Pliny's judgment it appears at every season, and among the smaller Hawks the Merlin or the Smerl alone seems to appear² at all times, is, I think, the Merlin of the English and Smerl of the Germans.

¹ Phœmone, called 'Daughter of Apollo,' was a priestess at Delphi. (See Pliny *Hist. Nat.* ed. Hardouin: Lipsiæ, 1791, Index Auctorum, p. 340.)

² This seems to be the force of the subjunctive here, if it is not an oversight.

- [p. 18] *Palumbarium* *ideo Anglorum sparhau-*
cam, & Germanorum speruuerum esse puto, quòd pa-
lumbes, columbos, perdices & grandiusculas aues inse-
quatur.
- Fringillarius.* *Fringillarium Anglorum hobbia esse conijcio. Est*
autem hobbia accipiter minimus, coloris cæteris nigri-
oris. In capite duos habet nigerrimos in pallido neuos.
Galeritas & fringillas plerumq; captat, in excelsis ar-
boribus nidulatur, & hyeme nusquam cernitur.
- Rubetarius.* *Rubetarium esse credo accipitrem illum, quem Angli*
hen harroer nominant. Porrò ille apud nostros à dila-
niandis gallinis nomen habet. Palumbarium magni-
tudine superat, & coloris est cinerij. Humi sedentes
aues in agris, & gallinas in oppidis & pagis repente
adoritur. Præda frustratus, tacitus discedit, nec un-
quam secundum facit insultum. Hic per humum om-
nium uolat maximè.
- Subbuteo.* *Subbuteonem esse puto, quem Angli ringtalum appel-*
lant, ab albo circulo, qui caudam circuit. Colore est medio
inter fuluum & nigrū, buteone paulò minor, sed multò
agilior. Prædam eodem modo, quo superior captat.

[p. 19]

DE ALCEDONE.

Ἀλκυὼν, *alcedo*, Anglicè *the kynges fissher*, Germanicè *eyn eifuoqel*.

ARISTOTELES¹.

Alcedo non multò amplior passere est, colore tum uiridi, tum cœruleo, tum etiam leuiter purpureo insignis: uidelicet non particulatim colore ita distincta, sed ex indiscreto uariè refulgens corpore toto & alis & collo, rostrum fubuiride, longum & tenue. Alcedonum² quo-

¹ *Hist. An.* Bk IX. 85.² *Hist. An.* Bk VIII. 47.

The *Accipiter palumbarius*¹ I take to be the Sparrow-Hawk of the English and the Sperwer of the Germans, since it preys on Doves, Pigeons, and Partridges and the bigger sorts of birds.

The *Fringillarius* I guess to be the Hobby of the English. Now the Hobby is a very little Hawk of darker colour than the other kinds. It has upon the head two spots of deep black on a lighter ground. It catches for the most part Larks and Finches, nests on lofty trees, and is not seen in winter anywhere.

The *Rubetarius* I think to be that Hawk which English people name Hen-Harrier. Further it gets this name among our countrymen from butchering their fowls. It exceeds the *Palumbarius* in size, and is in colour ashen. It suddenly strikes birds when sitting in the fields upon the ground, as well as fowls in towns and villages. Baulked of its prey it steals off silently, nor does it ever make a second swoop. It flies along the ground the most of all.

The *Subbuteo* I think to be that Hawk which Englishmen call Ringtail from the ring of white that reaches round the tail. In colour it is midway from fulvous to black; it is a little smaller than the *Buteo*, but much more active. It catches prey in the same manner as the bird above.

OF THE ALCEDO.

Ἄλκυον, *alcedo*, in English the kynges fisher, in German *eyn eissvogel*.

ARISTOTLE.

The *Alcedo*, not much larger than the *Passer*, is remarkable for being in its colour green and blue, and even slightly purple, not, that is to say, in separate parts, as if it had the colour perfectly distinct, but variably shining over every part alike of the whole body, with the wings and head. The beak is greenish, and is long and thin. The tribe of

¹ Later authors are probably more correct in applying this name to the Goshawk, which suits even Turner's account better.

que genus aquas adamat, quod duplex est: alterum uocale, harundinibus infidens, alterum mutum, quod ampliore corpore est. utriusque dorsum cœruleum. Sed alcedo apud mare quoque uerfatur.

PLINIUS ¹.

Ipse auis paulò amplior pascere², colore [p. 20] cyaneo, ex parte maiore, tantum purpureis & candidis admixtis pennis, collo gracili ac pro-cero. Alterum genus earum, magnitudine distinguitur, & cantu. Minores in harundinetis canunt. Halcyonem uidere rarissimum est, nec nisi Vergiliarum occasu, & circa solstitia, brumam^{ue}, naue aliquando circumuolata, statim in latebras abeuntem. Fœtificant bruma, qui dies Halcionides uocantur, placido mari per eos & nauigabili, Siculo maximè. In reliquis partibus est quidem mitius pelagus. Siculum utique tractabile. Faciunt autem septem ante brumam diebus nidos, & totidem frequentibus pariunt. Nidi earum admirationem habent, pilæ figura paulum eminente, ore perquam angusto, grandium [p. 21] spongiarum similitudine, ferro intercidi non queunt, frangunturque ictu ualido, ut spuma arida maris. Nec unde confingantur inuenitur. Putant ex spinis aculeatis, piscibus enim uiuunt. Subeunt & in amnes. Pariunt oua quina.

¹ *Hist. Nat.* Lib. x. cap. xxxii.

² Lege 'passere.'

Kingfishers, of which there are two sorts, is fond of watersides: one is a vocal bird, which sits on reeds; the other, which is of a larger size, is mute. The back is blue in both. The Kingfisher, however, also haunts the sea.

PLINY.

This bird is little bigger than the *Passer*, for the most part blue in colour, with the wings alone of purple mixed with white, and with a long and slender neck. Each of the two kinds may be distinguished by its size and voice. The lesser sing in reed-beds. It is very rare to see the *Halcyon*, and this occurs only towards the setting of the *Pleiades* and near the solstice or in winter-time, when, after circling round the ship awhile, it hurriedly departs again to its retreat. They breed in winter, at the season called the *Halcyon days*¹, wherein the sea is calm and fit for navigation, the *Sicilian sea* particularly so. Elsewhere indeed the ocean is less boisterous. The *Sicilian* is certainly gentle enough. Now these birds build their nests in the seven days before the winter solstice, and hatch out their young in the seven following. Their nests compel our wonder, of a ball-like shape, with a small jutting part and very narrow hole, like sponges of great size; they cannot be cut open with an iron tool, but may be broken by a vigorous blow, as dry sea-foam² may be. It is not known of what these are composed. Some think of pointed bones, since the birds live on fish. They also dive in rivers, and lay five eggs each.

¹ For the origin of this ancient tradition, the reader may be referred to any work dealing with Greek mythology.

² By 'dry sea-foam' Pliny probably meant masses of whelks' eggs.

Præter hæc duo ab Aristotele & Plinio descripta genera, auem noui, quæ si alcedonum generibus non sit adscribenda, sub quo genere contineatur, prorsus nescio. Ea sturno paulò minor est, corpore toto nigro, excepto uentre albo. Caudam habet breuiusculam, rostrum alcedone paulò breuius. Ante uolatum, alcedonis more crebrò nutat, & in uolatu gemit: uoce alcedonē ita refert, ut, nisi uideas, alcedonem esse iurares: in ripis fluminum, non procul à mari uidi, aliàs nusquam. pisciculis uictitat ut superiora alcedonum genera. Nidum huius nunquam uidi. Morpetenses, apud quos auem uidi, cornicem uocant aquaticam.

a uater
crauu.

DE ANATE.

Νῆτρα, *anas*, Anglicè *a duck*, Germanicè *eyn endt*.

PLINIUS¹.

[p. 22] Anates folæ, quæque sunt eiusdem generis, in sublimē sese protinus tollunt, atq; è uestigio cœlum petunt, & hoc etiam ex aqua.

DE ANSERE.

Χῆν, *anser*, Anglicè *a goose*, Germanicè *eyn ganß*.

Aristoteles simul & Plinius duo præcipua anserum genera faciunt: hic anserem in maiorem & minorem, ille in domitū et ferū diuidens. Sed Plin. præter hæc duo anserum præcipua genera, Penelopes² et chenalopeces, ut unus textus habet, & ut alius habet, chenalopeces, & chenerotes anserini esse generis tradit. Prior lectio sic habet,

¹ *Hist. Nat. Lib. x. cap. xxxviii.*

² Judging from p. 148 of the original work the singular of this word is 'Penelops,' and it is probably by mistake that the Wigeon has been called *Mareca penelope*.

Besides the two kinds thus described by Aristotle and Pliny I know of a bird, of which, if it should not be properly ascribed to the Kingfisher tribe, I really cannot say under what head it ought to go. It is a little smaller than a Starling, with the body wholly black, except for a white belly, and it has the tail comparatively short, the beak a little shorter than the Kingfisher. Before a flight it dips repeatedly, after the manner of the Kingfisher, and cries out as it flies; it is so like the Kingfisher in voice that, if you did not see it, you would swear it was a Kingfisher. I have observed it on the banks of streams not far from the sea-side, but nowhere else. It lives on little fishes, like the aforesaid kinds of Kingfishers. I never saw its nest. The inhabitants of Morpeth, where I saw the bird, call it a water craw¹.

OF THE ANAS.

Νῆττα, anas, in English a duck, in German eyn endt.

PLINY.

Anates only, and birds of like kind, rise in the air at once, and make straight for the sky, and that even from the water.

OF THE ANSER.

Χῆν, anser, in English a goose, in German eyn ganss.

Aristotle agrees with Pliny in making two chief kinds of Geese, the latter separating them into the greater and the less, the former into tame and wild. But Pliny tells us that besides these two chief kinds of Geese, there are of the Goose kind Penelopes and Chenalopeces, as one text has it, as another goes, Chenalopeces and Chenerotes. The first reading stands thus:—

¹ The bird meant is undoubtedly the Water Ousel or Dipper (*Cinclus aquaticus*), which still goes by the name of Water Craw in the north of England. It is curious that Turner should never have seen its nest when he was in Northumberland.

Anferū generis funt Penelopes, & quibus lautiores epulas Britannia non nouit, chenalopeces, anferē ferē minores. *Altera sic habet:* Anferini generis funt chenalopeces & quib⁹ lautiores epulas Britannia nō nouit, chenerotes¹.

[p. 23] *Posterior lectio mihi magis approbatur, nam & nos una aue locupletat, et penelopes anatini potius q̄ anferini generis eruditis esse uidentur. Sed quæ'nam istæ aues, & quibus nominibus apud nostrates appellantur, dicere tentabo. Chenalopex, ab anserē et uulpe nomen habet, & Latinè à Gaza uulpanser dicitur. Nostrates a bergander. hodie bergandrum nomināt, anate longior & grandior uulpanser est, pectore rufescente, in aquis degit, & in cuniculorū foueis. interdum & in excelsarum rupium cauernis (unde fortè nomen ab Anglofaxonibus, nostris patribus sortitus est) nidificat. Nusquam aliàs uulpanserem uidi, nisi in Tamisi fluuio. Aiunt tamen frequētem esse in insula Tenia uocata, & illic in scrobibus cuniculorum nidulari. Moribus admodum uulpinis est. nam dum teneri adhuc pulli sunt, si quis eos captare tentet, prouoluit sese uulpanser ante pedes captantis, quasi iam capi possit, atq; ita allicit ad se capiendam hominem, eousq; dum pulli effugiant: tum ipse auolat & reuocat prolem. Chenerotes quæ'nam aues sint, puto paucissimos hodie esse, qui nouerunt. Neq;*

¹ *Hist. Nat. Lib. x. cap. xxii.*

“Of the Goose kind there are Penelopes and also Chenalopes, the latter generally smaller than a Goose; and Britain knows no richer feast than these.”

The second runs:—

“Of the Goose kind are Chenalopes and Cherotes, Britain knows no richer feast than these.”

To me the latter reading most approves itself, for it both makes us richer by one bird, and the Penelopes seem to our learned men to be of the Duck tribe rather than of the Goose. But I will try to say what these birds are and by what names they go among our countrymen. The Chenalopex¹ takes its name from the Goose and the Fox, while it is called by Gaza Vulpanser in Latin, though our people nowadays name it Bergander². It is longer than a Duck and bigger, with a ruddy breast. It lives upon the waters and in coney's burrows. At times it even nests in holes of lofty rocks (whence possibly the name was first allotted to it by our ancestors the Anglo-Saxons). I have nowhere else seen the Vulpanser save upon the river Thames. Nevertheless they say that it is plentiful upon the isle which is called Tenia³, and that it breeds in coney's burrows there. In habits it is very like a Fox, for, while the young are still of tender age, should any one attempt to capture them, the old Vulpanser rolls upon the ground before his very feet⁴, as if she could be taken there and then, and thus allures the man to follow her, until the young are able to escape; then she flies off and summons back her brood. I think that there are very few men now who know what sort of birds the

¹ Turner's bird was undoubtedly the Sheld-Drake (*Tadorna cornuta*), notwithstanding the fact that the name *Chenalopex* has been conferred on the so-called 'Fox-Goose' of Africa.

² The Sheld-Drake is still the Bargander or Bergander of some districts of England; possibly the correct spelling should be Burgander, i.e. Burrow Duck. The word seems to have nothing to do with Berg=a mountain.

³ Possibly St Mary's, or even Coquet Island.

⁴ The Sheld-Drake does not usually behave thus.

ego, licet Britannus, chenerotes nostros satis noui: nā prāter duo Aristot. genera, anserū adhuc duo genera noui in Britānia, ad quorū neutrum sī chenerotes pertineāt, chenerotes mihi penitus ignotos esse ingenuē fatebor. Prior anser à nostris hodie brāta & berniclā uocatur, & fero anserē minor est, pectore aliquò usq; [p. 24] nigro. Cætero cinerio, anserum ferorū more uolat, strepit, paludes frequētat, & segetē depopulatur. Caro huius paulò insuauior est, & diuitibus minùs appetita. Nidum berniclæ, aut ouum nemo uidit: nec mirum, quum sine parentis opera berniclæ ad hunc modū spontaneam habeāt generationē. Quum ad certum tempus, malus nauis in mari cōputruit, aut tabulæ, aut antennæ abiugnæ, inde in principio ueluti fungi erumpūt: in quibus temporis progressu, manifestas auīū figuras cernere licebit, deinde pluma uestitas, postremò uiuas & uolantes. Hoc, ne cui fabulosum esse uideatur, prāter cōmune omniū gentiū littoraliū Angliæ, Hiberniæ & Scotiæ, testimoniū Gyraldus ille præclarus historiographus qui multò fælicius q̄ pro suo tempore Hiberniæ historiam conscripsit, nō aliam esse berniclarū generationē testatur. Sed, quum uulgo non satis tutū uideretur fidere, et Gyraldo ob rei raritatem non satis crederem, dum hæc, quæ nunc scribo, meditarer, uirum quendam, cuius mihi perspectissima integritas fidem merebatur, professione Theologum, natione Hibernum, nomine Oclauianū, consului num Gyraldum hac in re fide dignum censeret? qui per ipsum iurans, quod profitebatur euangelium, respondit, uerissimum esse, quod de generatione huius auis Gy- [p. 25] raldus tradidit, seq; rudes adhuc aues oculis uidisse, & manibus contrectasse: breuiq; sī Londini mensē unum aut alterum manerem, aliquot rudes auiculas mihi aduectas curaturū. Ista berniclæ generatio nō usq; adeo

Chenerotes are. And, though I am a Briton, I am not quite sure about our Chenerotes; for as yet, apart from the two kinds that Aristotle gives, I know two sorts of Geese in Britain and will frankly own that, if the Chenerotes are not to belong to either of them, they are quite unknown to me. The first Goose by our people nowadays is called the Brant and Bernicle, and is a smaller bird than the Wild Goose, with the breast partly black. The rest is ashen grey. It flies, gabbles, haunts swamps, and devastates green crops, like the Wild Goose. Its flesh is somewhat strong, and is the less sought after by the rich. No one has seen the Bernicle's nest or egg, nor is this wonderful, since Bernicles without a parent's aid are said to have spontaneous generation in this way: When after a certain time the firwood masts or planks or yard-arms of a ship have rotted on the sea, then fungi, as it were, break out upon them first, in which in course of time one may discern evident forms of birds, which afterwards are clothed with feathers, and at last become alive and fly. Now lest this should seem fabulous to anyone, besides the common evidence of all the long-shore men of England, Ireland, and Scotland, that renowned historian Gyraldus¹, who composed a history of Ireland in much more happy style than could have been expected in his time, bears witness that the generation of the Bernicles is none other than this. But inasmuch as it seemed hardly safe to trust the vulgar and by reason of the rarity of the thing I did not quite credit Gyraldus, while I thought on this, of which I now am writing, I took counsel of a certain man, whose upright conduct, often proved by me, had justified my trust, a theologian by profession and an Irishman by birth, Octavian by name, whether he thought Gyraldus worthy of belief in this affair. Who, taking oath upon the very Gospel which he taught, answered that what Gyraldus had reported of the generation of this bird was absolutely true, and that with his own eyes he had beholden young, as yet but rudely formed, and also handled them, and, if I were to stay in London for a month or two, that he would take care that some growing chicks should be brought in to me. This curious generation of the Bernicle will not appear so very

¹ Giraldu Cambrensis, *Topographia Hibernica* Distinctio I. cap. xv.

prodigiosa illis uidebitur, qui quod Aristoteles de uolucris ephemero scripsit, legerint.

De ephimero autem Aristoteles¹ libro quinto de historia animalium ita scribit. Hyppanis fluuius apud Cymerium Bosphorum sub solstitio, defert ueluti folliculos acinis maiores, quibus quadrupes uolucres erumpunt: quod genus animalis in postmeridianum² usque diei tempus uiuit & uolat: mox descendente sole, macrescit & languet³: deinde occidente, moritur, uita non ultra unum diem protracta: unde ephemerum, id est, diarium⁴ appellatum est. Hęc Aristotel.

Quę si uera sunt, & tãto philosopho digna, superioris auis generationi non parum fidei adstruent.

a folend
gufe.

[p. 26]

Alter anser, de quo promisi me dicturũ, marina auis est, ex uenatu piscium uictitans, magnitudine superiore ansere paulò minor: anserem tamen uoce & forma per omnia refert, nidulatur in mari Scotico, in rupibus excelsis, insulę Bassi, per antiphrasim, opinor, dictę: nec alias uspiam in tota Britannia. Hic tanto amore suos pullos prosequitur, ut cum pueris per funes in corribus ad auferēdos eos demissis, acerrimè non sine uitę periculo conflictetur. Nec silentio prætereundum est, ex adipe huius anseris (est enim insigniter adiposus) unguentum à Scotis ad multos morbos utilissimum fieri, quod cum commageno à Plinio⁵ celebrato, meritò bonitate & remediorum numero potest certare. Iam quũ anserum genera, licet diligentissimè inquirēs, apud Britannos plura inuenire non possim, chenerotes

¹ Bk v. 107.

² μέχρι δελτης.

³ These two words are not in the original Greek.

⁴ This explanation is not given by Aristotle. We have here an instance of the insertions common in old authors, which will not be noticed hereafter in each case, as being too numerous. Another instance is found with regard to 'Albicilla' (p. 30).

⁵ *Hist. Nat. Lib. x. cap. xxii.*

marvellous to those who may have read what Aristotle wrote about the flying creature called Ephemerus. Now Aristotle writes thus of the Ephemerus in the fifth book of his History of Animals:—

“The river Hyppanis¹, near the Cymerian Bosphorus² when the solstice is nigh, brings down small pouches, as it were, each larger than a grape, from which four-footed flying creatures burst; a sort of animal which lives and flies until the afternoon of the same day, but presently at the sun’s going down withers and languishes, and finally, at the sun’s setting, dies, lasting no longer than a single day, whence it is called Ephemerus, that is, the creature of a day.” Thus Aristotle writes.

Now if these things are true, and worthy of the great philosopher, they will impart no little credibility as to the generation of the aforesaid bird.

The second Goose, of which I promised I would speak, is a sea-bird, which lives by hunting fishes, somewhat less in size than the Goose given above; and yet in voice and aspect it recalls the Goose in every way; it nests within the Scottish sea, upon the lofty cliffs of the Bass Isle—so called, as I opine, by an antiphrasis³—and nowhere else in all Britain. This bird looks to its young with so much loving care, that it will fight most gallantly with lads that are let down in baskets by a rope to carry them away, not without danger of its life. Nor must we fail to mention that a salve, most valuable for many a disease, is made by Scots from the fat of this Goose (for it is wonderfully full of fat) which may deservedly rival the Commagenum vaunted much by Pliny, in its virtue and the number of its cures.

Now since, though searching with the greatest care, I cannot find any more kinds of Geese among Britons,

¹ Now the Bog.

² Between the Sea of Azov and the Black Sea.

³ As if the derivation was from the French *bas* = low.

(qui ab amore mihi nomen habere uidentur), aut bernicæ aut Bassani anseres sunt, aut mihi prorsus ignoti.

DE AQVILA.

ἀετὸς, aquila, Anglicè an egle, Germanicè ein ärn, oder ein adler.

ARISTOTELES¹.

Aquilarum plura sunt genera. Vnum, quod [p. 27] pigargus ab albicante cauda dicitur, ac si albicillam nomines. gaudet hæc planis, & lucis et oppidis. Hinnularia² à nonnullis uocata cognomine est. montes etiam, sylvamq̄, suis freta uiribus, petit. reliqua genera rarò plana & lucos adeunt.

Pygargus, quum sit primum aquilarum genus, Germanorum literatores turpiter errant, qui pygargum suum trappum faciunt, qui apud Aristotelem tetrax, & Plinio tetrao est, ut postea docebo. Pygargus Anglorum lingua, nisi fallar, erna uocatur.

an erne.

DE PLANGA AUT CLANGA EX ARISTOTELE³.

Alterum genus magnitudine secundum & uiribus, clanga⁴ aut planga nomine, saltus & conualles, & lacus incolere solitum, cognomine anataria⁵, & morphna, à macula pennæ, quasi neuia⁶ dixeris, cuius etiam meminit Homer. in exitu Priami⁷.

[p. 28] PLINIUS⁸ DE MORPHNA SIVE PLANGA.

Morphnos, quam Homerus & percnon uocat, aliqui & plancum & anataria, secūda magnitu-

¹ *Hist. An.* Bk IX. 111.

² νεβροφόνον = fawn-slayer.

³ *Hist. An.* Bk IX. 112.

⁴ For πλάγγος some texts have πλάνος. The word 'clanga' does not seem to be represented in the Greek.

⁵ νητροφόνος = duck-slayer.

⁶ This explanation is not in Aristotle.

⁷ *Iliad*, Bk XXIV. l. 316.

⁸ *Hist. Nat.* Lib. x. cap. iii.

the Chenerotes (which seem to me to get their name from "love"¹) are either Bernicles, or the Geese of the Bass, or are decidedly unknown to me.

OF THE AQUILA.

ἀετός, aquila, in English an eagle, in German ein ärn, or ein adler.

ARISTOTLE.

Of Aquilæ there are several kinds. One which is called Pygargus from its whitish tail, as though you were to name it Albicilla, loves plains, groves, and towns. For by-name it is called by certain Hin-nularia. It even seeks the mountains and the wood, relying on its might. The other kinds seldom approach the plains and groves.

Now, seeing that Pygargus is the first kind of the Aquilæ, the German scribblers err disgracefully, who reckon it their Trapp, which is the Tetrix in the works of Aristotle and the Tetrao of Pliny, as I shall shew afterwards. Pygargus, if I err not, in the English tongue is called an Erne.

OF THE PLANGA OR CLANGA, FROM ARISTOTLE.

Another kind, second in size and strength, by name Clanga or Planga, generally haunts glades and valleys and lakes. It has the by-name Anataria, and Morphna from the marking on the wing, as though you should say spotted. Of this Homer makes mention in the scene of Priam's death.

PLINY ON THE MORPHNA OR PLANGA.

Morphnos, which Homer also calls Percnos, some name Plancus and Anataria, second in size and

¹ A very doubtful derivation.

† in deie-
ctu.

† hofsem
aliàs abūdat.

[p. 29]

dine & ui, huicq̄ uita circa lacus. Iſta circa ſtagna aquaticas aues appetit mergētes ſe ſubinde, donec ſopitas laſſatasq̄ rapiat. Speſtanda dimicatio, aue ad perſugia littorum tendente, maximè ſi condensa harundo ſit: aquila †inde ic̄tu abigente ala, & cūm appetit in lacus cadente, umbramq̄ ſuam nanti ſub aqua à littore oſtendente: rurfus aue in diuerſa, & ubi minimè ſe credat expectari, emergente. Hæc cauſa eſt gregatim aibus natandi, quia plures ſimul non infeſtantur: reſperſu pinnarū †hoſtē obcæcantes. Sæpè & aquilæ ipſæ non tollerantes pondus apprehenſum, unà merguntur. Hæc Plinius.

Omnia, quæ Ariſtoteles & Plinius percno hætenus tribuerunt, Anglorum balbuſhardo conueniunt, ſi ſolam magnitudinem exceperis, quæ ſi alia adſuerint, hic fortaſſis non oberit. eſt autem illa, quam anatariam eſſe conijcio, auis buteone maior & longior, neuo albo in capite, colore fuſco proximo, ad ripas fluminum, stagnorum et paludium ſemper degens, uiuit ex uenatu anatium et gallinarum nigrarum, quas Angli coutas nomināt. Venationem hanc, cuius meminit Plinius, inter aquilam iſtam (ſi aquila dicenda ſit) & aues aquaticas, non ſolum ego ſæpiſſimè uidi, ſed infiniti apud Anglos quotidie uident. Si qua terræ portiuſcula ſuper aquas inter arundineta emineat, in hac ſolet nidum facere, ut quoniam uolatu non admodum ualet, à præda non procul abſit. Aues ſubitò adoritur, & ſic capit. Cuniculos iſta interdum etiam dilaniat. Nunc an iſta anataria ſit nec ne, doctis uiris iudicandum propono.

strength; it passes its life round lakes. By pools it chases water-birds, which dive from time to time, until it catches them sleepy and weary. The contest is a sight to see, the quarry seeking refuge on the shore, chiefly where reeds are thick, and thence the Aquila drives it away with a stroke of the wing and plunges in the lake as it swoops from above, shewing its shadow to the bird as it swims under water from the shore. Again the latter tries a different place and comes up where it thinks that it will least be marked. This is the cause of birds swimming in flocks, for they are not molested when in companies, and blind their enemy by splashing with their wings. The Aquilæ themselves, moreover, often are immersed, not being able to support the weight that they have clutched. Thus Pliny.

All things that Aristotle and Pliny have attributed to the bird Percnos so far well agree with the Balbushard of the English¹, if one may except its size alone, and if the rest be present, that perhaps should not stand in the way. Now the bird which I apprehend to be the Anataria, being bigger and longer than the Buteo, with a white patch upon the head, and nearly fuscous in colour, always haunts the banks of rivers, pools, and swamps; it lives by hunting Ducks and those black fowls which Englishmen call Coues. The conflict of which Pliny makes mention above between this Eagle (if it should be called an Eagle) and the water-birds I have seen often, and not I alone, but countless Englishmen witness it daily. If anywhere a little space of ground rises among the reed-beds, there the bird is wont to make a nest, that, since in power of flight it is not very strong, it may not be far distant from its prey. It suddenly attacks birds, and thus takes them. It also sometimes butchers coneyes. Now whether this may be the Anataria or not I put it to the learned to decide.

¹ The Bald-Buzzard or Marsh-Harrier (*Circus aruginosus*).

DE TERTIO GENERE EX ARISTOTELE¹.

Tertium genus colore nigricās, unde nomen [p. 30] accepit, ut pulla & fulua² uocetur, magnitudine minima, fed uiribus omnium præstantiffima. Hæc colit montes & fyluas & leporaria cognominatur.

PLINIUS³.

Melænaëtos. Melænaëtos à Græcis dicta, eademq; ualeria, minima magnitudine, uiribus præcipua, colore nigricans: fola aquilarum foetus suos alit, cætera fugant: fola sine clangore, sine murmuratione.

DE QUARTO GENERE EX ARISTOT.⁴

percnopter. Quartum genus percnopterus ab alarum notis, capite albicante, corpore minore, quàm cæteræ adhuc dictæ, hæc est. Sed breuioribus alis, cauda longiore, uulturis speciem hæc refert. Subaquila⁵, & aquila montana cognominatur. In [p. 31] colit lucos, degener, nec uicijs cæterarum caret, & bonorum, quæ illæ obtinent, expers est: quippe quæ à coruo, cæterisq; id genus auibus uerberetur, fugetur, capiatur. Grauis enim est, uictu iners: examinata⁶ fert corpora: famelica femper est, et querula, clamitat, & clangit.

DE HALIÆETO.

Halizætus Græcè & Latinè, Anglicè an *osprey*, Germanicè *eyn* *viſhâr*n.

¹ *Hist. An.* Bk IX. 113.

² Aristotle has merely: καλεῖται δὲ μελανάετος καὶ λαγωφόνος.

³ *Hist. Nat.* Lib. X. cap. iii.

⁴ *Hist. An.* Bk IX. 114; a very free version.

⁵ Some texts read γυπαίετος for ὑπαιετός.

⁶ Lege 'exanimata.' Aristotle has τὰ τεθνεῶτα φέρων.

OF THE THIRD KIND FROM ARISTOTLE.

The third kind in colour is blackish, whence it has received its name, so that the bird is called Pulla and Fulvia, in size the least of all and yet chiefest in strength. It haunts mountains and woods, and is called also Leporaria.

PLINY.

The bird called Melænaetos among the Greeks, which is the same as the Valeria, is very small in size, but chief in strength, in colour blackish: of the Aquilæ this kind alone fosters its young, the others drive them off: it is the only one without a scream, without a softer note.

OF THE FOURTH KIND FROM ARISTOTLE.

The fourth kind, called Percnopterus, from having spots upon the wings, is whitish on the head; it has a smaller body than the other sorts spoken of hitherto. But with its shorter wings and longer tail it has the aspect of a Vulture. It is called besides Subaquila and Mountain Aquila. It dwells in woodlands, an ignoble bird, not lacking the bad qualities of others, but void of the good that they possess. For it is beaten, put to flight, and caught by the Raven and by other birds like that. Further it is unwieldy, sluggish to get food, and carries off dead bodies; it is always ravenous and querulous; it cries continually and screams.

OF THE HALIÆETUS.

Haliæetus in Greek and Latin, in English an Osprey, in German eyn vishärn.

PLINIUS ¹.

Supereſt Haliaeetus, clariffima oculorum acie, librans ex alto ſefe uiſoꝝ in mari piſce, præceps in eũ ruens, & diſcuſſis peçtore aquis rapiens.

ARISTOTELES ².

Haliaeetos, hoc eſt, marina aquila, ceruice [p. 32] magna & craſſa, alis curuantibus, & cauda lata eſt. Moratur hæc in littoribus & oris. Accidit huic sæpius, ut quum ferre, quod ceperit, nequeat, in gurgitem demergatur.

Haliaeetos apud Anglos hodie notior eſt, quàm multi uelint, qui in uiuarijs piſces alunt: nam piſces omnes breui tempore aufert. Piſcatores noſtrates eſcis fallendis piſcibus deſtinatis, haliaeti adipem illinunt, aut immiſcent, putantes hoc argumento eſcam efficaciorẽ futuram, quòd haliaeto ſefe in aère librâte, piſces quot-quot ſubſunt (natura aquilæ ad hoc cogente, ut creditur) ſefe reſupinèt, & uêtres albicantes, ut quem liberet, eligeret, exhibeât.

DE AQUILA VERA EX ARISTOTELE ³.

Angli. a
right egle
German.
eyn edel arn.

Sextum genus gneſium, id eſt, uerũ germanumqꝝ appellant. Vnũ hoc ex omni aquilarum genere, ueri incorruptiqꝝ ortus creditur. Maxima omnium aquilarum hæc eſt, maior etiam [p. 33] quàm offifraga ⁴: ſed cæteras aquilas uel ſequialtera portione excedit, colore ruffa eſt, conſpectu rara.

DE ARDEA.

ἑρωδιός, ardea, Anglicè an heron. Germanicè eyn reyger.

¹ *Hist. Nat. Lib. x. cap. iii.*

² *Hist. An. Bk IX. 115, a free version.*

³ *Hist. An. Bk IX. 116.*

⁴ Gaza translates φήνη by ossifraga, but it is very doubtful what bird the ossifraga really was. Possibly it should be identified with the Lämmergeier (cf. Prof. Newton, *Dict. Birds*, p. 660).

PLINY.

The Haliaëtus remains, with eyesight of the keenest, poising itself aloft when it spies fishes in the sea below, then dashing headlong on them and securing them, the waters being parted by its breast.

ARISTOTLE.

The Haliaëtus, that is to say Sea Eagle, has the neck both big and thick, bowed wings, and a broad tail. It bides upon the sea-coast and the shores. It often happens, when it cannot lift what it has taken, that it is submerged beneath the tide.

The Osprey is a bird much better known to-day to Englishmen than many who keep fish in stews would wish; for within a short time it bears off every fish. Our anglers smear or mix their bait with Osprey's fat, arguing that thus the bait will prove more efficacious from the fact that, when the Osprey hovers in the air, whatever fishes be below turn up and shew their whitish bellies (as it is believed, the nature of the Aquila compelling them to this), that it may choose that one which it prefers.

OF THE TRUE AQUILA FROM ARISTOTLE.

The sixth kind men call Genuine, or true and thoroughbred. Of all the various kinds of Aquilæ this is the only one that is believed to be of true and unstained origin. This is the largest of all Aquilæ and bigger even than the Ossifrage, for it surpasses by one half as much the other Aquilæ; in colour it is reddish brown, but it is rarely seen.

OF THE ARDEA.

ἔρωδιός, ardea, in English a heron, in German eyn reyger.

ARISTOTELES¹.

Ardearum tria sunt genera, pella, alba, stellaris, piger cognomine. Pellæ coitus difficilis est: uociferatur enim, & sanguinem ex oculis (ut aiunt) emittit cum coit; parit etiam ægrè fummoç cum dolore. Pella sagax² & cœnæ gerula est, & operosa³. Agere interdum solet: colore tamen & prauo & aluo humida. Reliquarum duarum, alba colore est pulchro, & coit, & nidulatur & parit probè, pascitur paludibus, lacu, campis & pratis. Sed stellaris piger cognominata, (in fabula est, ut olim è feruo in auem tranfierit) atque, ut cognomẽ sonat, iners ociofaç est. Phoici appellatæ⁴, peculiare præ cæteris est, ut oculos potissimum appetat⁵. Petit lacus & fluuios ardea⁶ & albardeola, quæ magnitudine minor est, rostro lato, porrectoç.

The blue heron.

Pella apud Anglos in excelsis arboribus, nõ procul à ripis fluminum crescentibus nidum facit. Superior pars corporis cyanea est, inferior autem nõ nihil candidat, uentris excrementis liquidioribus inuadentes se subito aquilas, aut accipitres abigit, & se ita defendit. Vidi & huius generis, licet raras, albas, quæ neque corporis. magnitudine, neque figura, sed solo colore, à superiore distulerunt. Visa est etiam alba cum cyanea apud Anglos nidulari, & prolem gignere. Quare eiusdem esse speciei, satis constat. Albardeolam, quæ Græcè λευκερωδιός dicitur, semel tantum in Italia uidi, pella multò minor est, & hominis conspectu nõ perinde atq; cærulea fugit. Hæc si nõ uidißem, Angloru shou-

a cryel heron or a duarf heron. a myre dromble.

¹ *Hist. An.* Bk IX. 19.

² *Hist. An.* Bk IX. 93.

³ Aristotle's word is ἐπαγρος, which Sundevall renders by the Swedish equivalent of 'forages round the fields.'

⁴ *Hist. An.* Bk IX. 94.

⁵ This seems to mean that the φῶνξ eats other creatures' eyes, for Aristotle says: μάλιστα γὰρ ἐστὶν ὀφθαλμοβόρος τῶν ὀρνίθων.

⁶ *Hist. An.* Bk VIII. 46.

ARISTOTLE.

Of Ardeæ there are three kinds, Pella, Alba, and Stellaris, but the last has the by-name of Piger. The coupling of Pella is difficult, for it screams while it couples and (they say) emits blood from its eyes: it also brings forth painfully and with extreme distress. The Pella is sagacious, quick at getting food¹, and always busy. It is wont to be astir by day; yet it is mean in colour, with the belly wet. Of the remaining two the Alba, fair of colour, couples, nests and brings forth well; it feeds in marshes, on a lake, in fields and meadow-ground. But the Stellaris, by-named Lazy (in the fable it is said of old to have been changed from a slave to a bird), as its by-name imports, is slow and indolent. The bird called Phoix has beyond all others this peculiarity that it especially attacks the eyes. The Ardea and the Albardeola, which is of smaller size and has a broad and elongated bill, seek lakes and rivers.

The Pella builds its nest in England on the lofty trees that grow not far from the banks of streams. The upper part of the body is blue, the lower is, however, somewhat white. It routs Eagles or Hawks, if they attack it suddenly, by very liquid mutings of the belly, and thereby defends itself. Of this kind I have seen some white, though they are rare, which differed from the aforesaid neither in their size nor shape of body, but in colour only. Furthermore the white has been observed in England to nest with the blue, and to bear offspring. Wherefore it is clear that they are of one species. I have only once seen—and that was in Italy—the Albardeola, which is called *λευκερωδιός* in Greek; it is much smaller than the Pella and by no means shuns the sight of man so much as does the blue. Had I not seen it, I should have declared the Albardeola to be the English

¹ That is, for its young.

[p. 35]
a buttour
ein pittour.
ein rofdō.

Phoix.

lardam albardeolū esse iudicassent. Stellaris est, quā Angli buttourum, aut bittourum, & Germani pittourum & rofdommum nominant: nam auis est toto corporis habitu ardeis reliquis similis, ex piscium uenatu ad ripas paludium & amnium uiuens, pigerrima & stolidissima, ut quæ in retia ab equo facticio agi potest facilimè. Colore est ferè, quantum memini, phasiani, rostro limo indito, asininos ronchos uoce refert: oculos hominum auidissimè omnium auium appetit. Quare si quid impediatur, quò minùs stellaris esse possit, (quod mihi nondum cernere datum est) phoica esse oportebit, quam Aristoteles oculos maximè appetere testatur, quam & cæteræ ardæ idem facere sæpè uisæ sunt.

DE AVRIVITTE.

Χρυσομίττις, nō ut quidam codices habent, ῥυσομήτρης, aurivittis, Anglicè a gold finche, Germanicè eyu distelfinck, oder eyu stigelis.

Aurivittis.

Aurivittis una est ex auiculis, quæ carduorum semine uictitant¹, & uermes etiam oblatos, non attingunt. Alij goldfincam, aut disteluincam, spinum, alij carduellem esse uolunt. Sed si quis, ex spinuoris præter hanc aliam aurea uitta redimitam ostēderit, cui magis aurivittis nomen competat, quàm huic, opinionem meam faciliè patiar explodi, alioqui non uideo, quin digna sit, quæ probetur.

[p. 36]

DE ATTAGENE.

Ἀττάγην, ἀττάγας, attagen, attagena.

Attagen, ut scribit Aristoteles, gallinagini similis est colore. Attagenam uarijs distinctam esse maculis, Aristophanes² his uersibus testatur:

*Si quis ex uobis erit fugitiuus atq; uisus notis,
Attagen sanè apud nos uariius appellabitur.*

¹ Aristotle's groups of Birds are as follows: (1) γαμψώνυχες (crooked-clawed); (2) σκωληκοφάγα (worm-eating); (3) ἀκανθοφάγα (eating thistle seeds); (4) σκιποφάγα (? grub-eating); (5) περιστεροειδῆ (dove-like); (6) σχιζόποδα (cleft-footed); (7) στεγανόποδα (wholly webbed); (8) βαρέα (heavy, i.e. ground kinds). A few Birds, however, can hardly be placed under any of these.

² *Aves*, ll. 761—762.

Shovelard¹. Stellaris is that kind which Englishmen denominate buttour or bittour, and the Germans call pittour or rosdom. Now it is a bird like other Herons in its state of body generally, living by hunting fishes on the banks of swamps and rivers, very sluggish and most stupid, so that it can very easily be driven into nets by the use of a stalking horse. So far as I remember, it is nearly of the colour of a Pheasant, and the beak is smeared with mud; it utters brayings like those of an ass. Of all birds it aims at men's eyes most readily. Wherefore if anything hinders this kind from being the Stellaris (which is not yet given to me to see) it ought to be the Phoix, inasmuch as Aristotle testifies that it aims chiefly at the eyes, though other Ardeæ also often seem to do the same.

OF THE AURIVITTIS.

Χρυσομίτρις (not as some texts have it ῥυσομήτρης), aurivittis, in English a gold finche, in German eyn distel-finck or eyn stigelitz.

The Aurivittis is one of the small birds that feed on seeds of thistles, and do not touch worms even when offered to them. Some will have it that the Goldfinch or the Distelvinc is but the Spinus², some the Carduelis. But if anyone can shew another of the thistle-eating birds save this, girt with a golden band, to which the name of Aurivittis is more fitting than to this, I gladly will allow my opinion to be ignored, but otherwise, I do not see why it should not be worthy of approval.

OF THE ATTAGEN.

Ἄτταγην, ἀττάγας, attagen, attagena.

The Attagen, as Aristotle writes, is like the Gallinago in colour. And Aristophanes bears witness in these lines that the Attagena is marked with varied spots:—

“If any of you be a runaway and branded with the marks, he shall assuredly be called with us the spotted Attagen.”

¹ That is, the Spoonbill of modern books (*Platalea leucorodia*), while the buttour is of course the Bittern (*Botaurus stellaris*)

² Turner himself considered Spinus to be the Greenfinch (cf. p. 85 of the original).

PLINIUS¹ DE ATTAGENE.

Attagen maximè Ionius celebratur, uocalis aliàs, captus uerò obmutescit, quondam existimatus inter raras aues. Iam & in Gallia Hispaniaq; capitur, & per alpes.

PETRUS GYLLIUS².

Attagen, est perdice paulò maior, uersicoloribus picta plumis in dorso, & color ruffus est, uescitur grano, breuibus est alis, & puluator est.

Falluntur igitur Britannici ludimagistri, qui suū Wodcoccum attagenem faciunt, qui solis uescitur uermibus, & grana nunquam attingit. An attagenes apud [p. 37] *Anglos inueniantur nec ne, multum sanè ambigo. nam qui attagenem describunt, marem à fœmina non separant. unde colligo eundem fuisse colorem, & eandem figuram maris & fœminæ. Cæterum in hoc auium genere, quod apud nos ad attagenis formam proximè accedit, mas à fœmina ita differt ut duorum generū istiusmodi rerū inperito uideri possint. Vtranque tamen auem describam.*

Mas gallo domestico paulò minor, totus niger est, excepta ea parte caudæ, quæ podicem tegit, ea enim alba est. Cæterū nigredo huius nonnihil splendescit, ad eum ferè modum, quo columborum nigrorum torques circa colla splendescunt. ad uiriditatem igitur proximè accedit. in capite rubrum quendam habet, sed carneum cirrū, & circa genas duos habet ueluti lobos rubros, & eos carneos. Fœmina tota maculis distincta est, & à perdice, nisi maior esset, & ruffa magis, ægrè dignosci

¹ *Hist. Nat. Lib. x. cap. xlviij.*

² Petrus Gyllius was the author of the work *De vi et natura Animalium etc.* Lugd. Bat. 1533.

PLINY OF THE ATTAGEN.

The Attagen is most renowned as an Ionian bird; it usually is noisy, in captivity however it is dumb. In former times it was considered rare, but now it is taken in Gaul, in Spain, and on the Alps.

PETRUS GYLLIUS.

The Attagen is rather larger than the Perdix, and is marked with particoloured feathers on the back, in colour it is reddish, and it feeds on grain. It has short wings, and rolls itself in dust.

Accordingly our British schoolmasters are wrong who make their Woodcock the Attagen, which lives only on worms and never touches grain. Indeed I seriously doubt whether Attagenes be found in England or not, for those who give descriptions of the Attagen, do not distinguish the male from the female, whence I infer that they have the same colours and are like in form. But in the kind of bird which with us comes the nearest to the Attagen in form, the male differs so greatly from the female that they might appear to be of separate kinds to the man inexperienced in things like this. Nevertheless I will describe each bird.

The male¹ is somewhat less than a domestic cock and is entirely black, save that part of the tail which overlies the vent, for that is white. Moreover the black colour of the bird is somewhat glossy, very nearly as the collar round the neck of our black pigeons is. So it approaches very near to green. Upon its head it has a red but fleshy sort of comb², and round its cheeks two red lobes as it were and those fleshy. The hen is wholly marked with spots, and, were she not a bigger bird and more rufous, could scarcely be distinguished from a Partridge. Both frequent

¹ Turner here undoubtedly refers to the Blackcock (*Tetrao tetrix*).

² The Blackcock has two erectile patches of red skin over the eyes, which in the breeding season even reach above the top of the head; and the word 'cirrum' must be taken to mean such a patch here.

possit. In desertis locis & planis, erica potissimum confitis, ambo degunt. grano uescuntur, et summis ericæ germinibus. Breues habens alas, & breues faciunt uolatus. Hæc auis, si attagen nō sit, gallina uidetur esse Varronis rustica. Erasmus in Adagio, Attagenæ nouilunium, attagenam auem palustrem facit, & uarijs maculis distinctam. quod si satis exploratum [p. 38] mihi esset, Anglorum goduittam, sive fedoam, attagenam esse, indubitanter auderem adfirmare. Est autem ipsa gallinagini ita similis, ut nisi paulò maior esset, & pectoris color magis ad cinereū uergeret, altera ab altera difficulter possit distingui. uiuit in locis palustribus, et ad ripas fluminū. rostrum habet longum, sed capta triticum non secus atque columbi, comedit. triplo pluris quàm gallinago apud nos uenditur, tantopere eius caro magnatum palatis arridet. harum si neutra sit attagena, attagenam nusquam uidi.

DE ATRICAPILLA.

Μελαγκόρυφος, atricapilla, Germa. ut creditur, eyn graßmuflen.

ARISTOTELES¹.

Atricapillam etiam plurima edere aliqui referunt, sed post Africam strutionem. Iam uel decem & septē oua atricapillæ reperta sunt. sed plura etiam quàm uiginti parit, & numero impari semper, ut narrant. Nidificat ea quoq; in arboribus, & uermiculis alitur. Proprium huius [p. 39] & lusciniæ præter cæteras aues, ut linguæ summæ acumine careant. Ficedulæ & atricapillæ² uicibus commutantur. Fit enim ineunte autumno ficedula, ab autumno protinus atricapilla,

¹ *Hist. An.* Bk IX. 88.

² *Hist. An.* Bk IX. 256—257.

waste open places, and especially those covered with heather. They feed on grain and on the topmost buds of heather. They have short wings and take short flights. This bird, if it be not the Attagen, appears to be Varro's Gallina rustica. Erasmus in his proverb of "the Attagena's new-moon" makes his Attagena a marsh-bird, marked with varied spots. If this approved itself sufficiently to me I confidently would venture to affirm that the Attagena was what the English call the Godwitt or Fedoa¹. Furthermore the bird is so much like the Woodcock, that, if it were not a little larger, and did not the breast verge upon ash-colour, the one of them could hardly be distinguished from the other. It is found in marshy places and on river banks. The beak is long; but in captivity it feeds on wheat, just as our Pigeons do. With us it sells for thrice as much again as any Woodcock, so much does its flesh tickle the palates of our magnates. Of these two, if neither be the Attagena, then I have nowhere seen the Attagena.

OF THE ATRICAPILLA.

Μελαγκόρυφος, atricapilla, in German, as is supposed, eyn grasmuklen.

ARISTOTLE.

The Atricapilla, as some report, lays the most eggs of all, next to the Struthio of Africa. No fewer than seventeen eggs of the Atricapilla have been found, but it lays even more than twenty and, as some narrate, in number always odd. It also nests in trees and feeds upon small worms. It is peculiar to this and the Luscinia beyond all other birds that they have no point to the tip of the tongue. Ficedulæ and Atricapillæ change in turn. For when autumn sets in the bird becomes a Ficedula, from autumn onwards it becomes an Atricapilla, nor is

¹ See Prof. Newton's *Dict. Birds*, p. 248.

nec inter eas discrimen aliquod, nisi coloris & uocis est. Auem esse eandem cōstat, quia dum immutaretur hoc genus, utrūque conspectum est, nondum absolutè mutatum, nec alterutrum adhuc proprium ullum habens appellationis¹. Hæc Aristoteles.

Atricapillam in Anglia nunquam uidi, neq; sæpius in uita quàm semel, idq; in Italia in domo Ducis Ferrariensis. Eamq; mihi uir utriusq; linguæ nō uulgariter doctus, D. Franciscus, duci à Jacris concionibus exhibuit. Anglorū lingetæ, & Germanorum grasmuscho, quod ad corporis magnitudinem attinet, similis erat: sed atrum habebat caput, & reliquum corporis colorem magis ad cinerium uergentem.

[p. 40]

DE BVBONE.

Βύας², *bubo*, Anglicè, *alyke foule*, Germanicè *eyn* *schuffauß* / *eyn* *schüffel* / *eyn* *fauß*.

ARISTOTELES³.

Bubo è noctuarum genere est, & noctuæ specie quidem similis, sed magnitudine non minor quàm aquila.

PLINIUS⁴.

Bubo funebris, & maximè abominatus, publicis præcipuè auspicijs, deserta incolit, nec tantùm desolata, sed etiam inaccessa: noctis monstrum, nec cantu aliquo uocalis, sed gemitu. Volat nūquam quò libuit, sed transfuersus auferitur. Hęc Plinius.

Hanc auem semel Venetijs iusta aquilæ magnitudine uidi, sed crura erant paulò breuiora quàm aquilæ crura solent esse. Cætera aquilæ similis erat.

¹ Aristotle has *ἐκατέρω ἰδιόν τι ὑπῆρχεν οὐδὲν* according to one text. He has no word to represent 'appellationis.'

² Or *Βρύας*.

³ *Hist. An.* Bk VIII. 39.

⁴ *Hist. Nat.* Lib. x. cap. xii.

there any difference between the two, save that of colour and of voice. That the bird is the same is evident, since, while this kind is undergoing the change, each of the two is seen, not fully changed as yet, and neither having so far any proper name. Thus far Aristotle.

In England I have never seen the Atricapilla, nor yet but once in life, and that in Italy within the house of the Duke of Ferrara. And Don Francisco of the Holy Council of the Duke, a man uncommonly well versed in both the tongues, shewed it to me himself. The bird was like the English lingett and the German grasmuschen, so far as size of body went; but it had a black head, and the remaining colour of its body verging more to grey.

OF THE BUBO.

Búas, bubo, in English alyke foule, in German eyn schuffauss (eyn schüffel), eyn kautz.

ARISTOTLE.

The Bubo is of the race of Noctuæ, and is in aspect very like a Noctua, but not less than an Aquila in size.

PLINY.

The Bubo is a fatal bird, of evil omen beyond other sorts, especially at public auguries; it lives in desert places, and not merely those that are unpeopled, but those also hard of access: monster of the night it utters not a song, but only a groan. It never flies where it intends, but is borne off aslant. So Pliny says.

This bird I saw at Venice once, of a full Eagle's size¹, its legs, however, were a little shorter than an Eagle's legs are wont to be. But it was like an Eagle otherwise.

¹ Turner probably meant the Eagle Owl (*Bubo ignavus*).

[p. 41]

DE BOSCA.

Bosca, avis est aquatica, anati similis, sed minor. Quum multæ sint aves aquaticæ anati similes, sed minores, ut sunt, telæ uocatæ ab Anglis Vuigene & pochardæ, eam puto boscam esse, quæ proximè ad magnitudinem & similitudinem anatis accedit. Hoc quum pocharda faciat, illam Aristotelis esse boscam iudico.

DE CAPRIMVLGO.

Caprimulgus, αἰγιοθήλας.

ARISTOTELES¹.

Caprimulgus, avis est montana, magnitudine paulò maior, quàm merula, minor quàm cuculus, moribus mollior. Parit duo ova, aut tria cùm plurima. Sugit, caprarum ubera aduolans, unde nomen accepit. Cùm uber fuxerit, extingui, capramque excæcari aiunt, parùm clarè interdiu uidet, sed noctu perfpicax.

PLINIUS².

[p. 42] Caprimulgi appellantur grandiores merulæ aspectu, fures nocturni, interdiu etiam uifu carent.

Cùm essem apud Heluetios, senem quendam conspicatus, capras pascentem in montibus, quos herbas quærendi gratia ascenderam, rogabam num auem nouisset merulæ magnitudine, interdiu cæcam, noctu perfpicacem, quæ caprarum ubera noctu fugere soleat, unde capræ postea cæcæ euadunt? qui respōdit, se in Heluetiorum montibus ante quatuordecim annos, multos uidisse, & multas iniuriās ab ipsis passum, ut qui semel

¹ *Hist. An.* Bk IX. 109.

² *Hist. Nat.* Lib. x. cap. xl.

OF THE BOSCA.

The Bosca is a water fowl, like to a Duck¹, but smaller. Since there are many water fowls like to the Duck, but smaller (as there surely are), called Teles, Wigenes and Pochards by the English, I believe the Bosca to be that which comes nearest the size and likeness of a Duck. And since the Pochard does so, I decide that it is Aristotle's Bosca.

OF THE CAPRIMULGUS.

Caprimulgus, *αἰγοθήλας*.

ARISTOTLE.

The Caprimulgus is a mountain bird, in size a little bigger than the Merula, less than the Cuculus; in disposition it is milder. It lays two eggs or three at most. Flying to the udders of she-goats, it sucks them, and thus gets its name. They say that the udder withers² when it has sucked at it, and that the goat goes blind. By day the bird sees dimly, but quite well at night.

PLINY.

Caprimulgi, as they are called, look bigger than a Merula, and act as thieves by night; by day they even lack the power of sight.

When I was in Switzerland I saw an aged man, who fed his goats upon the mountains, which I had gone up intent on search of plants: I asked him whether he knew a bird of the size of a Merula, blind in the day-time, keen of sight at night, which in the dark is wont to suck goats' udders, so that afterwards the animals go blind. Now he replied that he himself had seen many in the Swiss mountains fourteen years before, that he had suffered many losses from those very

¹ That is, the Wild Duck (*Anas boscas*).

² This rendering appears much preferable to translating this word 'the goat dies,' as, judging from the punctuation, some would have it.

sex capellas à caprimulgo occæcatas habuerat. cæterū nūc omnes ad unum ab Heluetijs usque ad inferiores Germanos, ubi hodie non solūm capras lacte priuant & occæcant, sed & oues insuper occidunt, auolasse. Nomen auis quærenti, paphum, id est, sacerdotem dici respōdit. Sed uetulus ille mecū fortè iocatus est. Ego uerò, siue iocatus fuerit, siue seriò locutus, aliud Germanicū caprimulgi nomen quā quod me docuit iste, non teneo. Si qui sint, qui melius & aptius nomen in prōptu habeant, proferant.

DE CARDVELE.

Carduelis, sē Gazæ credimus, Græcè θραυπίς dicitur, [p. 43] & inter spiniuoras auiculas Aristoteles recenset. Nec plura de carduele apud Aristotelem lego. Plinius¹ scribit cardueles auium minimas imperata facere, nec uoce tantūm, sed pedibus & ore pro manibus.

Præter auiculam illam spiniuoram aurea uitta redimitam, aliam noui spiniuoram colore uiridem, quæ non secus atq; auriuittis rostro è duabus fitulis uicissim ascendentibus & descendentibus, cibum ex una, & potū ex altera desumit. Quin & hoc facit miliaria, quam linotam nostrates appellant. Eadē quoq; hominē quiduis cātantē, uoce imitatur. Quare nō sola illa, quæ Græcè θραυπίς, & Latinè Theodoro carduelis dicitur, imperata facit, & rostro & pedibus pro manibus utitur.

Diçtu mihi difficile uidetur, quam'nam è tribus, quum omnes illæ carduorum semine uescantur, Plinius carduelem fecerit, nū thraupin aut acanthin, aut chry-

¹ *Hist. Nat. Lib. x. cap. xlii.*

birds; so that he had once had six she-goats blinded by Caprimulgi, but that one and all they now had flown away from Switzerland to Lower Germany, where nowadays they did not only steal the milk of she-goats, making them go blind, but killed the sheep besides. And, on my asking the bird's name, he said that it was called the Paphus, otherwise the Priest. But possibly that aged man was jesting with me. Yet whether he was jesting, or spoke gravely, still I have no other German name than what he gave to me for Caprimulgus. If there be any then who have in readiness a better or a fitter name than this, let them produce it.

OF THE CARDUELIS.

The Carduelis, if we believe Gaza, is in Greek called *θραυπίς*. Aristotle also numbers it among small thistle-eaters¹. I find in Aristotle nothing more than this about the Carduelis. Pliny writes that Cardueles, smallest of all birds, perform set tasks, and not in song alone, but with their feet and beak in place of hands.

Besides that thistle-eating little bird² adorned with band of gold I know another thistle-eating sort, in colour green³, which with its beak takes up its food from one of two small buckets moving up and down alternately, its water from the other, as the Aurivittis does. The Miliaria moreover does the same, which bird our countrymen call Linot. Furthermore it mimics with its song a man when singing anything. And so it is not only that one kind, in Greek called *θραυπίς* and in Latin named by Theodorus⁴ Carduelis that performs the tasks that it is bid, and uses beak and feet in place of hands.

It seems to me then difficult to say, since all three birds feed upon thistle-seeds, which of them Pliny meant by Carduelis, whether it should be the Thraupis, or the Acanthis, or the Chrysomitris. And should it be the Thraupis, as

¹ See p. 35.

² The Aurivittis, p. 35.

³ Probably Turner means the Siskin (*Carduelis spinus*).

⁴ Theodorus Gaza.

somitṛē. Si thraupin, ut Gaza credit, auis illa aureis plumis carduelis non erit: nam illa apud Aristot. nō θραυπίς, sed Chryfomitris est. Quæ nã igitur auis carduelis sit, non audeo pronunciare.

DE CÆRVLEONE.

Κυανός, cæruleo, Anglicè, a clotburd, a smatche, an arlyng, a steincheh, German. eyn brech uögel.

[p. 44]

ARISTOTELES ¹.

Cæruleo maximè in Scyro² colit, faxa amans: magnitudine minor quàm merula, maior paulò quã fringilla: pede magno³ est, scanditq; faxa: colore cæruleo: rostro tenui & longo: crure breui, fimiliter ut pipo est.

Cæruleo, si ea sit auis, quam conijcio esse, in cuniculorum foueis, & sub lapidibus in Anglia nidulatur, & in hyeme non apparet.

DE CERTHIA.

ARISTOTELES ⁴.

Certhia, auicula est exigua, cui mores audaces, domicilium apud arbores, uictus ex coffis, ingenium fagax in uitæ officijs.

Auis est quædam, quam Angli creperam, id est, reptitatricem nominant, quòd super arbores semper reptat, quam certhiam esse credo. Ea regulo paulò maior, pectore pallido, cætera fusca & maculis nigris distincta

¹ *Hist. An.* Bk IX. 97.

² Another reading is Νισύρφ.

³ μεγαλόπους, but some read μελανόπους.

⁴ *Hist. An.* Bk IX. 92.

Gaza believes, that bird with golden feathers will not be the Carduelis, for with Aristotle that is not the *θραυπίς*, but the Chrysomitris. Therefore I dare not pronounce what bird the Carduelis is.

OF THE CŒRULEO.

Κυανός, cœruleo, in English a clot-burd, a smatche, an arlyng, a steinchek, in German eyn brech vögel.

ARISTOTLE.

The Cœruleo chiefly dwells in Scyros and loves rocks; in size it is a little smaller than a Merula, a little larger than a Fringilla: it has large feet, and climbs on rocks: in colour it is blue: the beak is long and thin: the legs are short as in the Pipo.

The Cœruleo¹, if it be the bird which I conjecture, nests in rabbit holes and under stones in England, and does not appear in winter.

OF THE CERTHIA.

ARISTOTLE.

The Certhia is a very little bird of bold habits; its home is upon trees, its food is grubs; it shews wise instinct for the needs of life.

There is a certain bird which Englishmen call Creeper, that is Climber, for it always climbs about on trees: this I believe to be the Certhia. It is a little bigger than the Regulus, having a whitish breast, the other parts dull brown, but varied with black spots; its note is sharp, its

¹ Whatever bird Aristotle's may be, Turner's is certainly the Wheatear. Belon and Gesner seem to think that the former is the Blue Thrush, but Sundevall is certainly wrong in suggesting that it is the Wall-Creeper (*Tichodroma muraria*).

[p. 45] *est, uoce acuta est, & rostro tenui, & leuiter in fine adunco, nunquam quiescit, sed semper per arbores picorum more scandit, & coffos è corticibus eruens, comedit.*

DE CICONIA.

Πελαργός, *ciconia*, Anglicè a stork, Germanicè eyn storck, & Saxonicè eyn ebeher.

Ciconia, ut Germanis auis est notissima, ita Britannis meis plerisq; omnibus tam ignota est, quàm quæ omnium ignotissima. Nec mirum, quum nusquam in insula nostra nisi captiua Ciconia uideatur. Apud Germanos in summis tectis, aliquando in ipsis summis fumarijs nidulatur. Auis est mediæ magnitudinis inter gruem & ardeam, pennis albis & nigris distincta: crura longa habet, rostrum gruina, sed rubrum & crassum: circa lacus & paludes degit, ranas, bufones, angues, & pisces comedens.

PLINIUS DE CICONIIS¹.

Ciconiæ, quó nam è loco ueniant, aut quò se referant, incompertum adhuc est. E longinquo uenire, non dubium, eodem, quo grues modo, illas hyemis, istas æstatis aduenas. Abi-
[p. 46] turæ congregantur in loco certo: comitataeque, sic ut nulla sui generis relinquatur, nisi captiua & ferua, ceu lege prædicta die recedūt. Nemo uidit agmen discedentium, cùm discessurum appareat, nec uenire, sed uenisse cernimus. Vtrumque nocturnis fit temporibus. Ciconiæ nidos eisdem repetunt, & genetricum senectutem educant.

DE CINCLO.

Κίγκλος, ἡ σεισοπυγίς, Anglicè a uwater suuallouu, Germanicè eyn stehnbiffer.

¹ *Hist. Nat.* Lib. x. cap. xxiii.

beak is slender and is slightly hooked towards the tip ; it never rests, but is for ever climbing up the trunks of trees after the manner of the Woodpeckers, and it eats grubs, picking them from the bark.

OF THE CICONIA.

Πελαργός, ciconia, in English a stork, in German eyn storck, and in Saxon eyn ebeher.

The Stork, though one of the best known of birds among the Germans, is to nearly all my countrymen of Britain as unknown as the most unknown bird. And little wonder since a Stork is nowhere to be seen, save as a captive, in our island. With the Germans the bird nests upon roofs or even chimney tops at times. It is a bird of middle size between a Crane and a Heron and distinguished by feathers of black and white : it has long legs and a beak like a Crane's, but red and stout ; it lives near lakes and marshes, eating frogs, toads, snakes and fishes.

PLINY ON CICONIÆ.

From what parts the Ciconiæ may come, or whither they betake themselves, is not yet ascertained. It is indubitable that they come from far in the same manner as the Grues, but the former arrive in winter and the latter in summer. When ready to depart these birds collect at some fixed place, and after gathering, so that none of their tribe, unless a prisoner or a slave, is left behind, they disappear, on an appointed day, as if by law. No one has ever seen the whole array in very act to go, though it may haply shew itself when ready to depart ; nor do we view it coming, but when it has come. Both these events take place at night. Ciconiæ seek the same nests again, and tend their parents in old age.

OF THE CINCLUS.

Κίγκλος, ἢ σεισποπυγίς, in English a water swallow, in German eyn steynbissler.

ARISTOTELES¹.

Cinclus ex mari & fluuijs uictū petit. astutus est, & captu difficilis: sed captus, omnium maxime mitescit. Lēsus hic est, incontinens enim parte sui posteriore.

Auicula, quā ego cinclū esse puto, galerita paulò maior est, colore in tergo nigro, uentre albo, tibijs longis, & rostro neutiquam breui: uere circa ripas fluminum, ualde clamosa est & querula, breues & crebros facit uolatus.

[p. 47]

DE CHALCIDE.

ARISTOTELES².

Chalcis rarò apparet, montes etenim incolit. nigro colore est, magnitudine accipitris, quem palumbarium nominant: forma longa ac tenui, Iones cymindem appellant. cuius *Homerus* etiam meminit in *Iliade* cū dicit:

*Chalcida dij perhibens, homines dixere cymindem*³.

Sunt, qui eandem hanc auē non aliam esse atque ptyngem uelint. Interdiu minùs apparet, quia non clarè uidet, sed noctu uenatur, more aquilæ: pugnat uerò cum aquila adeò acriter, ut sæpius ambæ implexæ, deferantur in terram⁴, & uiuē à pastoribus capiantur. Parit hæc oua duo, & faxis speluncisq; nidulatur.

¹ *Hist. An.* Bk IX. 76.

² *Hist. An.* Bk IX. 79—80.

³ *Iliad*, Bk XIV. l. 291. 'Perhibens' is a misprint for 'perhibent.'

⁴ Aristotle has not these five words.

ARISTOTLE.

The Cinclus seeks its food from the sea and from rivers. It is cunning and is hard to catch, but grows the gentlest of all birds when caught. It is moreover maimed, being without control over its hinder parts.

The little bird which I believe to be the Cinclus¹ is a little bigger than the Galerita, with black colour on the back, and a white belly; while it has long shanks and a bill by no means short: in spring it is exceeding clamorous and querulous about the banks of rivers, where it takes short and incessant flights.

OF THE CHALCIS.

ARISTOTLE.

The Chalcis is not often seen, for it haunts mountains. It is of a black colour, and of the size of the Accipiter which they name Palumbarius. Its form is long and slender; the Ionians call it Cymindis. Of it furthermore Homer makes mention in the Iliad, wherein he says:—

The Gods know it as Chalcis, men say Cymindis.

Some there are who would make this very bird none other than the Ptnyx. By day it shews itself but little, since it does not see clearly, although it hunts by night, after the manner of the Aquila; yet with the Aquila so keenly does it strive, that frequently both birds fall to the ground clutching each other, and are caught alive by shepherds. It lays two eggs, and nests in cliffs and caves².

¹ Turner evidently means the Common Sandpiper (*Actitis hypoleucos*).

² Sundevall says that Kùlb thought that this bird was the Hawk Owl, but himself refers it doubtfully to the Glossy Ibis (*Plegadis falcinellus*), which however is not a night bird and does not live on hills. Belon and Gaza thought that it was an owl of some kind.

[p. 48]

DE COLLVRIONE.

Κολλυρίων, *collurio*, *Anglicè*, a *feldfare* aut a *feldefare*. *Quibusdã German. eyn frammesjuögel.*

ARISTOTELES¹.

Collurio ijfdem, quibus merula uescitur, magnitudo eius eadem quæ superioribus, id est, uireoni & mollicipiti², capitur potius hyberno tempore.

Auis, quam collurionem esse puto, turdum magnitudine æquat, sed caudam habet longiorem, & magis mobilem, & pectus maculosum: In æstate apud nos aut rarò aut nunquam uidetur: in hyeme uerò tanta copia est, ut nullius auis maior sit. baccis aquifoliæ arboris, sorbi minimæ, & similibus arborum uescitur. gregatim uolat, & inter uolandum obstrepera est.

DE COLVMBIS.

Περιστερά, *columba*, *Anglicè* a *dowe*, *Germanicè* *eyn taube*. *Saxonice* *eyn duue*.

ARISTOTELES³.

Columbacei uerò generis plures species sunt.

Liuia.

[p. 49]

Est enim liuia à liuore dicta, diuersum certè à columba genus, quippe minor quàm columba fit, & minùs patiens mansuescere: liuet enim plumis, & penè nigricat, & pedibus rubris scabrosisq; est. Quas ob res, nullus id genus celare alit. Maximo inter hæc genera sunt corpore palumbes. Secundum magnitudinis locum uinago obtinet, paulò maior quàm columbus⁴ est. Minimum ex his turtur est. pariunt columbæ omnibus anni temporibus, pullosq; educant si locum apricum habeãt & cibum. Sin minùs,

Palumbes.

Vinago.

Turtur.

¹ *Hist. An.* Bk ix. 99.

² These five words are not represented in Aristotle. Moreover the *πάρδαλος* is here omitted, and is placed later (p. 107 of the original work), but there seems to be some doubt as to the correct reading in the Greek.

³ *Hist. An.* Bk v. 43. The readings vary in places, but the rendering is decidedly free.

⁴ Gaza and Turner make indiscriminate use of 'Columbus' and 'Columba' for the same kind of bird.

OF THE COLLURIO.

Κολλυρίων, collurio, in English a feldfare or a feldefare. According to some Germans eyn krammesvogel.

ARISTOTLE.

The Collurio feeds on the same meat as the Merula. Its size is that of the aforesaid kinds—that is, the Vireo and the Molliceps—it is caught chiefly in the winter time.

The bird which I consider to be the Collurio equals a Thrush in size, but has a longer and more flirting tail, also a spotted breast. Rarely or never is it seen with us in summer: yet its plenty is so great in winter that of no kind is there more. It eats the berries of the Holly, the Least Service, and like trees. It flies in companies, and on its flight is very noisy.

OF DOVES.

Περιστέρα, columba, in English a dove, in German eyn taube, in Saxon eyn duve.

ARISTOTLE.

Of the Dove-kind, however, there are many sorts. For first there is the Livia, named from its livid colour, which is certainly a different kind from the Columba, inasmuch as it is smaller and less ready to be tamed: and it is livid in its plumage, verging upon black, and has moreover red and roughened feet. Wherefore nobody keeps this kind in cotes. Of greatest size among the several sorts are the Palumbes; the Vinago holds the second place herein, a little bigger than the Columbus. The smallest of them is the Turtur. The Columbæ breed at all times of the year, and rear their young, if they have but a sunny place and food. If otherwise they breed

æstare tantummodo fœtant. Sed proles præstantior uere est, quàm autumnus, deterrima æstate, & omni tempore calidiore.

De iisdem in alio libro¹ ad hunc modum scribit,

[p. 50] Alia frugibus uiuunt, ut palumbes, columbus, uinago, turtur. Visuntur semper columbi, atque palumbes, sed turtur æstate tantùm, hyeme se condit, latitat² enim suo tempore. Vinago autumnus & conspicitur, & capitur, cui magnitudo maior, quàm columbo, minor quàm palumbi est.

Liuias. Πελειάς, quæ liuias Latinè dicitur, est syluestris illa columba, quàm Angli a stoedoue, & Germani εϋν hoτῆ taube nominant.

Palumbes. Φάττα, Latinè palumbes siue palumbus, dicta ab Anglis a couchot a ringged doue, & à Germanis εϋν ringel taube appellatur. Hæc longè aliter atque liuias nidulatur. Nidificat autem liuias in cauis aliquando arboribus, interdum & in templorum muris. Palumbes uerò in condensa hedera, aut super ramum arboris ex pauculis ligniculis transfuersim positis, tenuissimum nidum construit. Quod si quis mihi parùm hac in re fidat, torquatos columbos esse palumbes ueterum, Aristotelem diligentius legat, & Martialem³ poetam de iisdem ita scribentem audiat,

[p. 51] *Inguina torquati, tardant hebetantq; palumbi
Non edat hanc uolucrum, qui uolet esse salax.*

Politianus⁴ de palumbis ita scribit :

Dum sua torquatæ repetunt dictata palumbes.

Τρυγών.
Turtur.

Turtures in Germania sunt multò frequentiores quàm in Anglia. Turturem Angli & Saxones communi uocabulo turtel diue nominant.

¹ *Hist. An.* Bk VIII. p. 45.

² The Greek is φωλεῖ γάρ. But how far Aristotle referred to birds 'hibernating' is very doubtful.

³ *Epigr.* Lib. XIII. lxvii.

⁴ A poet and scholar of the Renaissance.

only in summer. Yet in spring the young are better than in autumn, they are worst of all in summer and at every hotter season.

Of the same he writes in another book after this manner:—

Other birds live on crops, as the Palumbes, the Columbus, the Vinago and the Turtur. The Columbi and Palumbes may be always seen, the Turtur only in the summer. In the winter it lies hid, for it conceals itself at the due time. But the Vinago is both seen and caught in autumn, of which bird the size is greater than that of the Columbus, but less than that of the Palumbes.

Πελειάς, which in Latin is called Livia, is that dove of the woodlands which the English name a stocdove, and the Germans *eyn holtztaube*.

Φάττα, in Latin Palumbes or Palumbus, is called by Englishmen a Coushot or a Ringged Dove, and by Germans named *eyn ringel taube*. It nests far otherwise than does the Livia, for that bird sometimes breeds in hollow trees and sometimes even in the walls of churches. But the Palumbes builds a nest of the frailest of a few small twigs laid crosswise in a mass of ivy or upon a bough. Now in this thing if there be anyone who places little confidence in my opinion that our collared doves are the Palumbes of the ancients, let him read with greater care his Aristotle and give ear as well to Martial the poet writing thus of the same birds:—

Ringed doves make a man's loins slow and dull;
Who would be lusty should not eat this bird.

Politian writes of the Palumbi thus:—

While ringed doves seek again their accustomed haunts.

Turtle Doves are much more plentiful in Germany than in England. English and Saxons in common call it *turtel duve*.

Vinago.

Oivás, quæ Latinè uinago dicitur, mihi nunquã hætenus uisa est, nec quid habeat nominis apud nostros, aut apud Germanos compertum habeo. Vidi tamen Venetijs columbos hujus nostratibus sesquialtera portione maiores: sed hos non uinagines fuisse credo, sed columbos à Campania ad Venetos aduectos, ubi Plinius columbos scribit esse grandiffimos.

DE COTVRNICE.

ὄρνυξ, coturnix, Anglicè a quale, Germanicè eyn waçtel.

PLINIUS¹.

Coturnix parua auis, & cùm ad nos uenit, terrestris potiùs quàm sublimis. Aduolant & hæ simili modo, quo grues & ciconiæ, non sine [p. 52] periculo nauigantium, cùm appropinquauere terris. Quippe uelis sæpè insidunt, & hoc semper noctu, merguntq; nauigia. Coturnicibus, ueratri, siue ut alij legunt, ueneni: semen gratiffimus cibus. quam ob causam eas damnare mensæ, simulq; comitalẽ propter morbum despui fuetum, quem solè animalium sentiunt præter hominem.

Quæ, quum ita se habeant, demiror quis malus genius Britannis meis in mentem immisit, ut eas tantopere in deliciis habeant, quum tot malis, ueneno scilicet, et comitali morbo, illarum caro sit obnoxia. Coturnix perdici similis est: sed multis partibus minor. Coturnix, ut scribit Aristot. hoc sibi peculiare & proprium uindicat, ut & ingluuiem, & gulam propè uentriculum amplam & latam habeat.

¹ *Hist. Nat. Lib. x. cap. xxiii.*

Oivás, in Latin called *Vinago*, has never met my eye up to this time, nor have I yet found out what name it bears among our countrymen or among Germans. But I have seen doves in Venice half as big again as those of our own land, although I do not think that they could be *Vinagines*, but birds brought to those parts out of Campania, where Pliny notes the Doves to be exceeding large.

OF THE COTURNIX.

ὄρνυξ, coturnix, in English a quale, in German *eyn wachtel*.

PLINY.

The Coturnix is a little bird, and, when it comes to us, keeps on the ground more than aloft. Yet it flies hither just as *Grues* and *Ciconiæ*, not without danger to sea-faring men, when they approach the land. For these birds often settle on the sails, and that always at night, and so sink ships. The seed of *Veratrum*, or, as others read, *Venenum*, is a very grateful food to the Coturnices, and for this cause men have condemned them for the table; furthermore it is the custom for them to be spurned on account of the falling sickness, to which, they alone of animals, save man, are subject.

Now since these things are so, I marvel much what evil genius put it into the mind of my fellow Britons to esteem them thus among their delicacies, when their flesh is liable to ills so many, namely poison and the falling sickness. The Quail is like the Partridge, although many times smaller. As Aristotle writes, it claims a property peculiar to it of having both crop and gullet large and wide near to the stomach.

DE CORNICE.

Κορώνη, *cornix*, Anglicè a *crouu*, Germanicè *eyn frae*, & *eyn fraeg*. *Cornix auis est omniuora, nam carnes, pisces, & grana interdum uorat, circa littora maris, & ripas fluminum multùm uersatur, ut ea animalia, quæ* [p. 53] *unda eiicit, tangat. Cornix tota nigra est. & media magnitudine inter monedulam & coruum.*

Est & marina quædam cornix, quam aliqui hibernam cornicem uocant, capite, cauda, & alis nigris, cætera cineria: an hanc aliquando uiderint Aristoteles & Plinius, dubito: nam de ea nusquam mentionem fecerunt. Supereft adhuc & alia cornix graniuora, rostro albo, cætera nigra. Hæc σπερμολόγον, id est, frugilegam Aristotelis Longolius esse coniecit.

DE CORVO.

Κόραξ, *coruus*, Anglicè a *rauen*, Germanicè *eyn rabe*. *Coruus, quum sit auis cornice maior, tota nigra & carniuora, omnibus satis notus est. Corui locis arctioribus & ubi satis pluribus non sit, duo tantùm incolunt, & suos pullos càm iam potestas uolandi est, primùm nido eiiciunt, deinde regione tota expellunt. Parit coruus quatuor aut quinq;.*

DE CVLICILEGA.

Κυπολόγος, *culicilega*, Anglicè a *uuagtale*, Germanicè *eyn wasser stelz*, *eyn quiffsterz*.

ARISTOTELES¹.

Culicilega, magnitudine est quæta spinus, colore cinerea, distincta maculis, uoce parua, quæ & ipsa lignapeta² est. [p. 54]

Culicilegam esse iudico auiculam, quam aliqui motacillam nuncupant. est autem illa albo & nigro uariè

¹ *Hist. An.* Bk VIII. 44.

² The Greek is *ἔστι δὲ καὶ τοῦτο ξυλοκόπον*.

OF THE CORNIX.

Κορώνη, cornix, in English a crow, in German eyn krae and eyn kraeg.

The Crow¹ is an omnivorous bird, for it eats flesh and fish and sometimes grain; it much frequents sea-coasts and river-banks, that it may there obtain those animals which the tide has thrown up. The Crow is wholly black and is midway in size between a Daw and a Raven.

There also is a certain Sea Crow, which some call the Winter Crow², with black head, tail, and wings and the remainder grey: but whether Aristotle or Pliny ever saw this bird I am uncertain, for they have not mentioned it in any place. There still remains another Crow³, a grain-eater, with white beak, but black otherwise. Longolius conjectured this to be Aristotle's σπερμολόγος, that is frugilega.

OF THE CORVUS.

Κόραξ, corvus, in English a raven, in German eyn rabe.

The Raven, inasmuch as it is bigger than the Crow, quite black, and a flesh-eater, is sufficiently well known to all. In places with less space, and where there is not room for many, Ravens dwell only in pairs, and, when their young have just gained power of flight, the parents first banish them from the nest, and later drive them out of the whole neighbourhood. The Raven has a brood of four or five.

OF THE CULICILEGA.

Κνιπολόγος⁴, culicilega, in English a wagtail, in German eyn wasser steltz, eyn quikstertz.

ARISTOTLE.

The Culicilega is a bird of the same size as the Spinus, ash-coloured, and marked with spots: its voice is poor; moreover it pecks wood.

The Culicilega I judge to be that little bird, which some name Motacilla, inasmuch as it is variously marked with

¹ The Carrion Crow (*Corvus corone*).

² The Hooded or Grey Crow (*Corvus cornix*).

³ The Rook (*Corvus frugilegus*).

⁴ Sundevall thinks that this bird is *Certhia familiaris*.

distincta, cauda longa, quam semper motitat. degit plurimum ad ripas fluminum, ubi muscas captat & uermiculos, quin & aratrum uermium causa sequitur, quos uersat & exhibet cum gleba aratrum.

DE CVCVLO.

Κόκκυξ, *cuculus*, Anglicè a *cukkouu*, & a *gouke*, Germanicè *eyn fuffuf*.

ARISTOTELES¹.

Cuculus ex accipitre fieri, immutata figura, à nonnullis putatur: quoniam quo tempore is apparet, accipiter ille, cui similis est, non aspicitur. Sed ita ferè euenit, ut ne cæteri item accipitres cernantur cùm primam uocem emisit cuculus, nisi perquam paucis diebus. Ipse autem breui tempore estatis uifus, hyeme nõ [p. 55] cernitur. Est hic neque aduncis unguibus, ut accipiter, neq; capite accipitri similis: sed ea utraque parte columbum potius quàm accipitrem repræsentat. Nec alio quàm colore imitatur accipitrem, nisi quòd maculis distinguitur, ceu lineis, cuculus uelut punctis. Magnitudo atq; uolatus similis accipitrũ minimo, qui magna ex parte non cernitur per id tempus, quo cuculus apparet. Nã uel ambo unà uifi aliquando sunt. Quin etiam ab accipitre interim² cuculus uifus est; quod nulla auis suo in genere solet facere. pullos cuculi nemo ait se uidisse. parit tamẽ, uerùm non in nido, quem ipse fecerit, sed

¹ *Hist. An.* Bk VI. 41—44.

² Aristotle has *κατεσθιόμενος*.

black and white, and it has a long tail, which it is always jerking. It mostly haunts the banks of rivers, where it catches flies and little worms; moreover it follows the plough for the sake of the worms which are turned up and laid bare with the clod.

OF THE CUCULUS.

Κόκκυξ, cuculus, in English a cuckow, and a gouke, in German eyn kukkuck.

ARISTOTLE.

By some the Cuculus is thought to come by change of form from an Accipiter¹, since, at the season when the former appears, the Accipiter which it resembles is not seen. But commonly it so falls out that the other Accipitres are likewise absent when the Cuculus utters its earliest cry, save for a very few days. Further the bird itself is only seen for a short time in summer; it is not observed in winter. Nor has it the claws hooked as an Accipiter, nor yet a head like an Accipiter: but in both of these parts it counterfeits a Columbus rather than an Accipiter. In naught but colour does it imitate the Accipiter, except that in its marks, it is distinguished as it were by lines, the Cuculus by spots. The size and mode of flight are like those of the least of the Accipitres, which for the most part at the time wherein the Cuculus appears, is not to be observed. Yet on occasion both have been seen at once. The Cuculus, moreover, has been known to be struck down by the Accipiter, which thing no bird is ever wont to do to one of its own kind. Nobody says that he has seen young of the Cuculus, and yet it breeds, although not in a nest which it has made itself: but sometimes

¹ Such a tradition is still common in many parts of this country and on the Continent.

interdum in nidis minorum auium, & ova, quæ aliena reperit, edit: maximè uerò nidos palū-
 [p. 56] bium petit, quorum & ipsorum ova esu absumit, sua relinquens: parit maiori ex parte singula ova, rarò bina. Curucæ quoque in nido parit, fouet illa & excudit & educat. Quo quidem præcipuè tempore¹ & pinguis & grati faporis pullus cuculi est. Genus eorum quoddam nidos facere procul in petris excelsis, præruptisq; affolet.

Curuca a
 titlyng.

Cuculum hęc nobis satis graphicè depinxit Aristoteles, si curucam eadem diligentia descripsisset, non fuisset hodie tam omnibus ferè incognita quā nunc est. Ego suspicor Anglorum titlingam esse curucam Aristotelis. Nam nullam auem in uita frequentius cuculi pullum sequentem, & pro suo educantem, quam illam obseruauit. Est autem illa lusciniæ minor, sed eadem corporis figura, colore subuiridi, culices & uermiculos in ramis arborum sectatur, rarò humi consistit, hyeme non cernitur.

DE CRECE EX ARISTOTELE².

[p. 57] Sed cū omnibus quaterni digiti sint, tres parte priore habentur, unus parte posteriore pro calce, ut tute fit, qui minutus inest ijs, quæ longa habent crura, ut in crece euenit³. Est⁴ autem crex moribus pugnacibus, ingenio ualens ad uictum, sed cætera infœlix.

Est auis quædam apud Anglos, longis cruribus, cætera coturnici, nisi quòd maior est, similis, quæ in segete & lino, uere et in principio æstatis non aliam

¹ This apparently means 'when in the nest.' How then does Aristotle say that 'no one has ever seen the young'? The passage may be an interpolation, as may be another which follows referring to Hawks. If so, the fact of nesting on rocks may also refer to Hawks, and be a further interpolation.

² *Hist. An.* Bk II. 46.

³ 'ut...euenit.' These words are not in Aristotle.

⁴ *Hist. An.* Bk IX. 91.

in the nests of smaller birds, and it devours the eggs of the others that it finds. It mostly seeks the nests of the Palumbes and eats those birds' eggs, leaving its own behind. For the most part it lays a single egg or rarely two. It also lays in the Curuca's nest, and that bird sits upon the eggs, hatches and rears the young. And at that time indeed the offspring of the Cuculus is both particularly fat and of a grateful flavour. A certain kind of Cuculus is wont to make its nest far off on steep and very lofty rocks.

Here Aristotle has portrayed the Cuculus to us most graphically, and, had he described the Curuca in the same careful way, it would not at this day have been so little known to almost everyone as now it is. The Curuca of Aristotle I suspect to be the Titling¹ of the English. For I have observed no other bird in life more frequently than this following the Cuckow's young and rearing it, as though its own. Now it is less than the Luscinia, but with the same figure of body, and in colour somewhat green; it hunts for gnats and little worms among the boughs of trees. It seldom settles on the ground, and is not seen in winter.

OF THE CREX FROM ARISTOTLE.

But seeing that all birds have four toes each, three are directed forwards and one backwards by way of a heel, for safety's sake; the last is very small in such as have long legs, as happens with the Crex. Further the Crex is of pugnacious habit, clever in procuring food, but of bad omen otherwise.

There is a certain bird in England with long legs, otherwise like a Quail, except that it is bigger, which in spring as well as early summer makes no other cry among the corn and flax

¹ It is impossible to say with certainty what Turner's 'Titlyng' was; but probably he meant the Tree-Pipit, which he confounded with the Titlark.

habet uocem, quàm crex crex: hęc enim uocem semper ingeminat, quam ego Aristotelis crecem esse puto. Angli auem illam uocant a daker hen, Germani enim ἰχθυή. nusquam in Anglia nisi in sola Northumbria uidi & audiui.

DE DIOMEDEIS AVIBUS EX PLINIO¹.

Nec Diomedæas præteribo aues. Iuba cataractas uocat, & eis esse dētes, oculosq; igneo colore, cætera cādidos tradēs. Duos semper [p. 58] ijs duces, alterum ducere agmen, alterum cogere. Scrobes excauare rostro, inde crate cōsternere, & operire terra, quæ antè egesta fuit, in his fœtificare. Fores binas omniū scrobibus, orientem spectare, quibus exeant in pascua, † occidentem, quibus redeant. Aluum exoneraturas subuolare semper, & contrario flatu. Vno hæ in loco totius orbis uiuentur, in insula, quam diximus nobilem Diomedis tumulo, atque delubro, contra Apulię oram, fulicarum similes. Aduenas barbaros clangore infestant. Græcis tantùm adulantur, miro discrimine, uelut generi Diomedis hoc tribuētes, ædemq; eius quotidie pleno guttore madētibus pennis perluunt.

† occasum

DE FICEDVLA.

[p. 59] Συκαλὶς, *ficedula* Latinè dicta, non est Germanorum *sneppa*, quæ locis gaudet humidis, & solis uer-

¹ *Hist. Nat. Lib. x. cap. xlv.*

than crex crex, and moreover it repeats this sound incessantly; I think that it is Aristotle's Crex. This bird the English call a Daker Hen, and the Germans *eyn schryk*¹. I have not seen or heard it anywhere in England, save in Northumberland alone.

OF THE AVES DIOMEDEÆ FROM PLINY.

And I will not omit the birds of Diomedæ², which Juba calls Cataractæ, telling us that they have teeth and fire-coloured eyes, but otherwise are white. They always have two captains, one to lead the band, the other to bring up the rear. These birds dig furrows with the beak, then cover them with wattlework, and hide this with the earth thrown out at first; in these places they breed. Each furrow has two openings, one facing east, by which they may go out towards their feeding grounds, the other facing west, by which they may return. They always flutter out to disburden the belly, and against the wind. In one place only of the whole world are they to be seen, namely that island which we have set down as famous for the tomb and shrine of Diomedæ, over against the shore of Apulia. They are like Fulicæ. Strangers who come there they attack with clamour, only on the Greeks they fawn, with wonderful discernment, paying as it were this tribute to the race of Diomedæ, and every day they purify his shrine with brimming throats and water-laden wings.

OF THE FICEDULA.

Συκαλὶς, in Latin called *ficedula*³, is not the sneppa of the Germans, which delights in wet localities, and feeds only

¹ Schlegel (*Vog. Nederl.* II. 60) says that the Dutch schriek is the Water Rail (*Rallus aquaticus*), but Turner evidently means the Corn Crake (*Crex pratensis*). Naumann (*Naturg. Vög. Deutschl.* IX. p. 496) gives Schrecke as a local name for the Corn Crake.

² Apparently Shearwaters of some species are meant. For the story see any work on Mythology.

³ For the supposed change of *Ficedula* into *Atricapilla*, see p. 39.

mibus uestitur: sed auicula Germanorum grasmuscho similis, ficubus & uuis uictitās, ut pulchrè his uersibus Martialis¹ testatur:

*Cùm me ficus alat, & pascar dulcibus uuis,
Cur potiùs nomen non dedit uua mihi?*

DE FRINGILLA.

Σπίζα, fringilla, Anglicè a chaffinche, a shield appel, a spink, Germanicè eyn büchfink.

Fringillæ, autore Aristotele, æstate tepidis locis, & hyeme, frigidis degunt, & inde puto apud Latinos nomen accepisse, quòd in frigore plures conuolantes apud nos cernantur, quàm æstate. Pascerem magnitudine æquat, uarijs coloribus, albo nempe, uiridi & ruffo distincta est. maris pectus rubescit, fæminæ pallefcit: cantat mas primo uere. Nidulatur fringilla in summis fruticum ramis, aut arborum infimis, nidumq; intus ex lana, forisq; ex musco facit.

DE MONTIFRINGILLA.

Οροσπίζης, mōtifringilla, Anglicè a bramlyng, Germanicè eyn rowert.

ARISTOTELES².

[p. 60] *Montifringilla fringillæ similis est, & magnitudine proxima: fed collo cœruleo est, & in montibus degit, unde nomen accepit.*

Auicula, quam ego montifringillam esse credo, fringillæ magnitudine & corporis figura similis est: sed mas in collo plumas habet cœruleas, quas nō æquè promptè in fæmina depræhendas. Rostrum luteum est, & alæ uarijs coloribus, albo, nigro, & luteo nimirum distinguütur, ut auriuittis. Vox illi insuauis & stridula est.

¹ *Epig.* Lib. XIII. xlix.

² *Hist. An.* Bk VIII. 41.

on worms¹; but is a little bird like the grasmusch of the Germans, living upon figs and grapes, as Martial prettily bears witness in these lines:—

Since the fig gives me nourishment, and I feed on sweet grapes,
Why has the grape not rather given me a name?

OF THE FRINGILLA.

Σπίζα, fringilla, in English a chaffinche, a sheld-appel², a spink, in German *eyn büchfink*.

Fringillæ—on Aristotle's authority—in summer haunt warm places, and in winter cold; and thence I think that they received their name among the Latins³, for when it is cold more are seen flocking round us than in summer time. In size the bird equals a Sparrow and is marked with various colours, namely, white and green, and russet. In the male the breast is ruddy, in the female pale. The male sings in the early spring. The Fringilla nests upon the highest boughs of shrubs or on the lowest boughs of trees, and fashions its nest inwardly of wool and outwardly of moss.

OF THE MONTIFRINGILLA.

Ὀροσπίζης, montifringilla, in English a bramlyng, in German *eyn rowert*.

ARISTOTLE.

The Montifringilla is like the Fringilla, and similar in size, but with a blue neck; and it lives in mountains, whence it has its name.

The little bird which I believe to be the Montifringilla, in size and shape of body is like the Fringilla, but the male has blue feathers upon the neck, which one cannot perceive so quickly in the hen. The beak is yellow, and the wings in truth are marked with various colours, yellow, black and white, as in the *Aurivittis*. Its note is unmelodious and grating.

¹ See p. 35.

² Shell-apple, or Apple-sheiler is still a Northumbrian name for the Chaffinch. The word 'sheld' may mean 'parti-coloured.'

³ Here Turner's mistaken etymology (*Fringilla a frigore*) is evident.

DE FLORO EX ARISTOTELE¹.

Anthos, siue florus, uermibus pascitur, & magnitudo illi, quanta fringillæ est. uictitat circa aquas & paludes, & ei color pulcher est, & uita commoda, odio equum habet, pellitur enim ab equo pabulo herbæ, qua uescitur. Nubeculans, nec ualens oculorum acie est, quippe qui uocem equi imitetur, atque aduolans [p. 61] equum fuget: sed interdum excipitur occidaturq; ab equo. In ægithum florus tantum odium gerit, ut ne mortuarum auiũ fanguis posse misceri dicatur.

DE FVLICA.

Κέπφος, fulica, Anglicè a uuhite femauu uuith. a blak cop. Germanicè, eyn wyß merwe.

Recentiores Græci, qui post Aristotelem scripserunt, larum & cepphum eandem auem fecerunt, ut Erasmus in Adagio, λάρος κέπφος, ex Aristophane² & eius interprete ostendit. Aristoteles uerò duas facit diuersas aues libro de historia animalium octauo his uerbis, ἔστι δὲ λάρος ὁ λευκός καὶ κέπφος. Iam quædam ratione autores istos conciliã, nescio, nisi dicam poëtas rerum peculiare & proprias notas, & discrimina, philosophis multò negligentius obseruantes, aues corporis figura, natalibus, & uictus ratione similes, licet manifestis notis differentes, easdem aues fecisse, quas seueriores philosophi ad amissim omnia expedientes, in diuersas species distinxerunt.

Sed inter huius ætatis grammaticos, non minor est opinionum uarietas de fulica, quænam illa sit, quàm [p. 62] inter Græcos de nomine controuersia fuit. Sunt enim

¹ Hist. An. Bk VIII. 41 and Bk IX. 18, 22, freely rendered.

² Pax, l. 1067. By 'interpreter' is evidently meant the Scholiast, who says that the Proverb is used of those who promise much, and perform little.

OF THE FLORUS FROM ARISTOTLE.

The Anthos, that is Florus, feeds on worms; its size is that of the Fringilla. It gets victual round waters and marshes; its colour is fair, and its life easy to it. It holds the Horse in hatred, inasmuch as it is driven by the Horse from the grassy pastures where it feeds. It is purblind and nowise keen of eyesight, while it imitates the neighing of the Horse, and flying at it puts the Horse to flight, yet sometimes it is caught and then killed by the Horse. The Florus has so great a hatred of the Ægithus that it is stated that the blood of these two birds, even when dead, cannot be mixed.

OF THE FULICA.

Κέπφος, fulica, in English a white semaw, with a black cop, in German eyn wyss mewe.

The later Greeks, who have written after Aristotle, have made the Larus and the Cephphus the same bird, which fact Erasmus in his Proverb *λάρος κέπφος* shews, from Aristophanes and his interpreter. But Aristotle in the eighth book of his History of Animals keeps the two birds distinct, using the following words:—"There is the *λάρος* that is white, also the *κέπφος*." Now in what way to reconcile these authors I know not, unless I say that poets who observe more negligently than philosophers the peculiar properties of things, and their diversities, have made these birds the same, which are alike in form of body, breeding-time, and way of feeding, although differing in manifest respects, whereas philosophers, more strict than they, gauging all things exactly, have distinguished them as different kinds.

And yet there is not less diversity of opinion among the critics of our day about the Fulica, and what that bird may be, than there was controversy among the Greeks about its name. For there are teachers of a sort¹ in Lower

¹ 'Literatores' is here apparently used in a somewhat scornful sense.

Anglorū
lapuuinga.

in inferiori Germania literatores aliqui, qui fulicam kyuuittam suam esse uolunt, ex eo forsan opinionem suam adstruentes, quòd apud Plinium fulicæ cirrum tribui legerint. Est autem Germanorum kyuuitta cornice minor, plumis ferè uiridibus, et nigris per totum dorsum et caput et collū: uentre albo, longa, & semper erecta in capite: crista plumea, alis obtusioribus, & inter uolandum magnum strepitum edentibus, unde & uannellus a barbaris dicitur: aquis uermium gratia, quibus solis uiclitat, appropinquat, sed ipsas non ingreditur, in planis & in locis erica confitis, plurimum degit. Ad depopulandum uermes, nostrates in hortis sæpè alunt.

Sed hanc esse fulicam non patitur, quod Vergilius de fulica Georgicorum primo¹ ad hunc modum scribit:

*Iam sibi tum curuis malè temperat unda carinis,
Cùm medio celeres reuolant ex æquore mergi,
Clamoremq; ferunt ad littora, cumq; marinæ
In sicco ludunt fulicæ.*

Hinc satis liquet kyuuittam non esse fulicam, quum non fit auis marina nec aquatica. Non desunt qui fulicam gallinam illam nigram aquaticam, alba in fronte macula, esse uolunt. Sed isti Vergil. et Aristotelis autoritate facilè erroris conuincuntur, quorum alter auem facit marinam, alter, nempe Aristoteles lib. octauo historię animalium, apud mare uiuere testatur. Quare quum palustris illa gallina neque auis fit marina, neq; apud mare uictum petat, sed in stagnis, paludibus, & recentibus aquis perpetuò degat: nec Vergilij fulica, nec Aristotelis κέπφος esse poterit. Sed iam restat, ut quam auem fulicam esse iudicem, ostendam.

Est auis marina, magnitudine monedulæ, sed alis acutioribus & longioribus, colore tota albo, excepto nigro, quem in capite gerit cirro: rostro etiam & pedibus puniceis. Hanc ego sæpè in mari nauigans, ex eo

¹ Lib. I. l. 360—3.

Germany, who will have it that the Fulica is their Kywit, possibly resting their opinion on what they have read in Pliny of a tuft being attributed to the bird Fulica. The Kywit of the Germans is, however, smaller than a Cornix, with the plumage almost green and black on the whole back and head and neck, the belly white, a long and always upright feathery crest upon the head, and somewhat rounded wings, which during flight make a great hurtling, whence it is even named by foreigners Vannellus. It approaches waters for the sake of worms, on which alone it feeds, but does not enter them. It mostly lives in open country, and in places overgrown with heather. Our people often keep this bird in gardens, to destroy the worms.

And yet what Vergil in this manner writes in the first book of his Georgics of the Fulica will not permit this bird to be his Fulica :—

“And now the waters scarce restrain themselves from the ships’ curving keels, while the swift Mergi wing their way once more out of the Ocean’s midst, bringing their noisy voices to the shore, and while the Fulicæ, frequenters of the sea, disport themselves on land.”

Hence it is clear enough that the Kywit is not the Fulica, since it is not a sea-bird nor a water-bird. There are not wanting those who would have that black Water Hen, with a white frontal patch, to be the Fulica¹. But on the strength of Vergil and Aristotle such are easily convicted of mistake, for one of these makes it a sea-bird, and the other, namely Aristotle in the eighth book of his History of Animals, bears witness that it lives about the sea. Wherefore, since that Marsh Hen is neither a sea-bird nor seeks its food about the sea, but constantly haunts pools, and marshes, and fresh waters, it can neither be the Fulica of Vergil nor the κέπφος of Aristotle. But it still remains that I should shew what bird I judge the Fulica to be.

There is a sea-bird², like a Daw in size, but with the wings sharper and longer, wholly white in colour, save for a black patch which it bears on the head, and with the beak and feet of purplish red. I often, journeying upon the sea, have had

¹ I.e. the Coot (*Fulica atra*).

² The Black-headed Gull (*Larus ridibundus*).

tempore, quo historiam animalium Aristotelis legeram, consideravi, tū præsertim, quando uel deficiente uento, uel flante contrario, emissa anchora, uentum sequundiorem quiescentes expectauimus. Hæc statim soluta anchora, gauijs comitata aduolat, ex purgamentis nauis eiectis, escæ nonnihil sibi promittens, diutino clangore defatigata, tandem kep̄h profert, ut lari cob. unde à nostris marini cobbi dicuntur. Fieri potest, ut in fulicarum genere quædam sint cinereæ, licet Plin. ubi ex autoritate Iubæ Diomedæas aues, fulicis similes albas esse tradit, uideatur fulicas omnes albas facere, nam [p. 64] *non de eo, quod rarius, sed frequentius accidit, in genere loquuntur classici scriptores. Nidulātur lari & fulicæ in eisdem locis, in excelsis nempe petris, & marinis rupibus.*

DE GAVIA.

Λάπος, gauia, a se cob or a seegell.

Gauiarum duo genera Aristot. facit: alterum album, quod apud mare, alterum cinerium, quod circa lacus & fluuios uictum quærit. Gauiam albam à fulica parum differre arbitror, solo nimirum cirro et rostro. Gauia cinerea, quæ ad flumina & lacus ascendit, querula semper & clamosa est. pisciculos captat & uermes ad ripas lacuum. huius generis est & alia parua auis, nostrati lingua sterna appellata, quæ marinis laris ita similis est, ut sola magnitudine & colore ab illis differre uideatur: est enim iste larus, marinis minor & nigrior. Tota æstate tam improbè clamosa est, quo tempore parturit, ut iuxta lacus & paludes degentes, immodico clamore tantum nō obtundat. hęc ego sanè auem esse credo, cuius improba garrulitas adagio, Larus parturit, locum fecit. uolat ferè perpetuò super lacus & paludes, nunquā quiescens, sed prædæ semper inhians. Nidulatur hæc in densis arundinetis. Marinæ gauiæ in petris & rupibus maritimis nidificant.

this bird in mind, from the time that I read Aristotle's History of Animals, and then especially when through the wind failing or blowing contrary, the anchor being dropped, we have been calmly awaiting a more favourable wind. The anchor being weighed this bird immediately flies to us in the company of Gulls, promising something to itself by way of food out of the refuse cast forth from the ship; at last exhausted by its constant cries it merely utters "keph," as Gulls cry "cob." And hence they are called Sea-Cobs by our countrymen. It may be that some of the race of Fulicæ are grey, though Pliny, when on the authority of Juba he relates that the birds known as Diomedæ's are white like Fulicæ, seems to put down all Fulicæ as white; for classical authorities speak not in any class of what more rarely, but of what more frequently occurs. Gulls nest in the same places as do Fulicæ, forsooth on lofty crags and rocks about the sea.

OF THE GAVIA.

Γάρος, gavia, a se cob or a see-gell.

Aristotle makes two kinds of Gaviæ, one white, which seeks its food about the sea, the other grey, which seeks it round the lakes and rivers. Now I think that the white Gavia differs but little from the Fulica, only indeed as to the hood and beak. The grey Gavia, which comes up to our rivers and lakes, is always querulous and full of noise. It catches little fishes and eats worms upon the banks of lakes. There is another small bird of this kind, called Stern¹ in local dialect, which is so like the sea Lari that it seems to differ from them only in its size and colour; for it is a Larus, though smaller than the sea Lari and blacker. Throughout the whole of summer, at which time it breeds, it makes such an unconscionable noise that by its unrestrained clamour it almost deafens those who live near lakes and marshes. This I certainly believe to be the bird whose vile garrulity gave rise to the old Proverb "Larus parturit." It is almost always flying over lakes and swamps, never at rest, but always open-mouthed for prey. This bird nests in thick reed-beds. The sea Gaviæ breed on crags and rocks about the sea.

¹ The Black Tern (*Sterna nigra*).

[p. 65]

DE GALERITA.

Κόρυδος, ἢ κορυδαλός, Ang. a lerk or a lauerock, Germa. eyh lercþ. *Plinius naturalis historiæ undecimo libro, galeritam Gallico uocabulo, postea alaudam esse dictam ostendit. quare galeritæ potiùs uocabulo, quàm alaudæ Latinis utendum esse ex autoritate Plinij censeo.*

ARISTOTELES DE GALERITIS¹.

Galeritarum duo sunt genera: alterum terrenum cristatum, alterũ gregale. nec singulare more alterius, uerũm colore simile, quãquam magnitudine minus, & galero carẽs, cibo uerò idoneũ, galeritæ nunquã in arbore consistunt, fed humi².

Prius hoc Aristotelis genus uariam habet in uarijs regionibus cristam, alicubi semper apparentem: in alijs locis talem, ut pro arbitrato suo possit erigere aut deponere, quũ una eademq; sit utriusq; auis magnitudo. & galeritam hanc maiorem, Angli propriè lercam nominant. Alterum genus Aristotel. à nostris fera alauda, à Germanis heid lercþ nominatur, in planis & locis ericæ eonstitit, & ad ripas lacuũm, uermium causa, quibus uictitat, magna ex parte degit. Duplo ferè superiore minus est, & rostro tenui, & carne longè suauissima.

a uuilde
lerc or a heth
lerk.

[p. 66]

a uuodlerck.

Supereft tertium galeritæ genus, Germanis copera, à lögiffima crista, ut arbitror, ita dictum, Aristoteli planè incognitum: nam priùs Aristotelis genus esse non potest, quia minor est quàm ut illud esse possit: minùs autem illud genus esse non potest, quia galerum habet, qui Aristotelis posteriori generi deest. Quare galerita ista, Aristoteli fuit incognita. Et cùm Colonienses aucupes coperam (quæ mediæ est magnitudinis inter Aristotelis

¹ *Hist. An.* Bk IX. 101.

² *Hist. An.* Bk IX. 66.

OF THE GALERITA.

Κόρυδος, ἢ κορυδαλός, in English a lerk or a laverock, in German eyn lerch.

Pliny, in the eleventh book of his Natural History, has shown us that Galerita¹, taken from a Gaulish word, was called Alauda afterwards, wherefore I think that on Pliny's authority the name of Galerita should be used by those who write in Latin rather than Alauda.

ARISTOTLE, OF THE GALERITÆ.

Of Galeritæ there are two kinds, one is a crested ground-bird, but the other lives in flocks, not singly as the former. Yet in colour it is similar, though of a smaller size, and not having a crest. Moreover it is fit for food. The Galeritæ never sit upon a tree, but always on the ground.

The first kind given by Aristotle has in different lands a different crest, in one place always evident, elsewhere such that the bird can raise or lower it at will, although the size of either is one and the same. This larger Galerita Englishmen call the Lerc proper, while Aristotle's second sort is by our countrymen named a Wilde Lerc, and by the Germans a heid lerch; this for the most part lives in open country, and in places overgrown with heather, and on banks of lakes, for the sake of the worms on which it feeds. This bird is smaller by nearly one half than the aforesaid, with a slender beak, and flesh by far the sweetest.

There still remains a third kind of Galerita, the Copera of the Germans, thus named I believe from its very long crest, and certainly unknown to Aristotle, for it cannot be his first kind, inasmuch as it is smaller than that bird can be; likewise it cannot be the smaller sort, because it has a crest, which is not present in the latter kind. Wherefore this Galerita was unknown to Aristotle. And since the fowlers of Colonia [Cullen] with one accord assure us that the Copera (which is midway in size between Aristotle's crested Galerita

¹ Galerita is usually supposed to have some connexion with the Latin galea=a helmet.

galeritam cristatam, & non cristatam) concordibus adfirmant suffragijs, hanc nullā habere peculiarem cantinunculam, sed ineptè aliarum, quibuscum uidētat, auium uoces referre, adducor planè ut credam hanc esse recentiorum Græcorum corydon, cuius in sequenti adagio mentio est ἐνάμουσις¹ καὶ κόρυδος φθέγγεται, & in hoc uersu :

εἰ κύκνω δύναται κόρυδος παραπλήσιον ἄδειν.

Nā galerita maior, pulchrè & suauiter cantat, & minorem cantu non minùs ualere tradunt aucupes. Hæc igitur quum uoce nihil possit, sed ineptè tantùm aliarum uoces, suo garritu mentiri, recentiorum Græcorum erit corydos.

[p. 67]

DE GALLIS ET
gallinis.

Ἀλέκτωρ, *gallus, Anglicè a cok, Germanicè eyn hān.*
Ἀλέκτορις, *gallina, Anglicè a hen, Germanicè, eyn hen.*
Saxones dicunt eyn hōn.

VARRO² DE RE RUSTICA LIBRO TERTIO.

Rusticæ
gallinæ.

Villaticæ.

Gallinæ rusticæ, sunt in urbe raræ, nec ferè manfuetæ sine cauea uidentur Romæ, similes facie non his uillaticis gallinis nostris, sed Africanis aspectu, ac facie incontaminata. In ornatibus publicis solent poni cum pŕiticis ac merulis albis, item id genus rebus inufitatis. Neque ferè in uillis oua ac pullos faciunt, sed in fyluis.

Africanæ.

Meleagrides.

Gallinæ Africanæ, sunt grandes, uariæ, gibberæ, quas Meleagrides Græci appellant. Hæ nouissimæ in triclinium ganearium introierunt, [p. 68] è culina propter fastidium hominū. Venerunt³ propter penuriam magno. De tribus generibus, gallinæ faginantur maximè uillaticæ. Eas in-

¹ Undoubtedly the reading should be :—ἐν ἀμούσις = among those with little voice. Both these proverbs are to be found in the *Adages* of Erasmus, Chil. II. Cent. II. 92.

² Bk III. cap. ix.

³ No doubt a misprint for 'ueneunt' = are sold.

and the non-crested) has no song of its own, but feebly imitates the notes of other birds with which it feeds, I am assuredly led to believe that it must be the Corydos of the later Greeks, of which mention is made in the proverb below:—

Ἐνάμουσις καὶ ὁ κόρυδος φθέγγεται,

and in this verse:—

εἰ κύκνη δύναται κόρυδος παραπλήσιον ᾄδειν.

For the larger Galerita sings fairly and sweetly, and the fowlers say that in its song the smaller kind is worth no less. Wherefore the third kind, since it has no power of voice except feebly to imitate the voices of the others by a twitter of its own, will be the Corydos of the later Greeks.

OF THE GALLI AND GALLINÆ.

Ἀλέκτωρ, gallus, in English a cok, in German eyn hän.

Ἀλέκτορις, gallina, in English a hen, in German eyn hen.
The Saxons say eyn hön.

VARRO, IN HIS THIRD BOOK DE RE RUSTICA.

The wild Gallinæ are rare in a city, and are scarcely seen at Rome tame, unless in a cage: they are not in appearance like the Gallinæ of our country-houses, but in look recall the African, and have the face unmarked¹. During public festivities these birds are wont to be exhibited with Psitaci, white Merulæ, and other unfamiliar kinds of that description. They do not usually lay their eggs or hatch their young at country-houses, but among the woods.

The African Gallinæ, which the Greeks call Meleagrides, are big, speckled, and hunch-backed. They have been the last to enter the dining room of eating-houses from the kitchen through people's fastidiousness. And from their rarity they have advanced to a great price. Of the three kinds those of the country-house are chiefly fattened. These they keep shut up in

¹ It is impossible to reconcile the statements of Varro and Columella as they stand. Various alterations of the text, which is possibly unsound, have been suggested.

Gallus medicus a bauncok or a cok of kynde.

cludunt in locum tepidum & angustum & tenebrosum, quòd motus earum & lux pinguedini inimica, electis ad hanc rem maximis gallinis, nec continuò his, quas Melicas appellant falsò, quòd antiqui ut thetim thelim dicebāt, sic Medicā Melicā uocabant. Hæ primò Medicę dicebantur, quia ex Media propter magnitudinem erant allatæ.

COLUMELLA¹.

Cohortalis. Rustica. [p. 69] Africana. Gallinarū alię sunt cohortales, alię rusticę, alię Africanę. Cohortalis est auis, quæ uulgò per omnes ferè uillas conspicitur. Rustica, quæ non dissimilis uillaticę, per aucupem decipitur, eaq; plurima est in insula, quã nautæ in Ligustico mari sitam, producto nomine alitis, gallinariã uocitauerunt. Africana est, quam plerique Numidicam dicunt, meleagridi similis, nisi quòd rutilam galeam, & cristam capite gerit, quæ utraq; in Meleagride sunt cœrulea.

PLINIUS².

Africæ. Simili modo pugnant Meleagrides in Bœotia. Africæ, hoc est gallinarum genus gibberum, uarijs sparsum plumis, quę nouissime sunt peregrinarum auium in mensis receptæ, propter ingratum uirus: uerùm Meleagri tumulus nobiles eas fecit.

ARISTOTELES³.

[p. 70] Item Hadrianæ paruo quidem sunt corpore, fed quotidie pariunt. Ferociunt tamen & pullos sæpè interimūt. Color his uarius. Oua⁴

¹ *De re rustica*, Lib. VIII. cap. ii.

² *Hist. Nat.* Lib. x. cap. xxvi.

³ *Hist. An.* Bk VI. 1.

⁴ *Hist. An.* Bk VI. 5.

a warm, narrow, and dark place, for exercise and light hinder the fattening. The largest birds are chosen for this purpose, and not always those which men mistakenly call Melicæ, because the ancients, as they used to say Thelis for Thetis, also used to call Medica Melica. At first they were called Medicæ because on account of their size they were brought hither out of Media.

COLUMELLA.

Of Gallinæ some are court-yard birds, others again are wild, others are African. The court-yard bird is that which commonly is seen at nearly every country-house. The wild sort, which is not unlike that of the country-house, is trapped by bird-catchers. It is abundant in the island lying in the Ligurian sea, which sailors, lengthening the bird's name out, have called continuously Gallinaria. The kind from Africa, which many call Numidica, is like the Meleagris, save that on its head it bears a helmet and a crest of red, but in the Meleagris both of these are blue¹.

PLINY.

In a like way the Meleagrides fight in Bœotia. The Africæ, that is a hunch-backed kind of Gallinæ, are sprinkled here and there with variegated feathers; and they are the last of foreign birds to be received at table, on account of their unpleasant flavour: but the tomb of Meleager has ennobled them².

ARISTOTLE.

Likewise the Hadrianic birds are small indeed in body, but they lay their eggs daily. Yet they are fierce and often kill their chicks. They are of varied

¹ See Art. Guinea Fowl in Prof. Newton's *Dict. B.* p. 399.

² The reader may here be referred to any work relating to mythology.

alia candida funt, ut columbarum & perdicum, alia pallida, ut paluftrium, alia punctis distincta, ut Meleagridum & phasianorum.

In paucis istis, quos recensui autoribus, nō paucae sunt de rebus, quas tractauere, cōtrouerfiæ. Varro primū gallinas rusticas non uillicatis¹ sed Africanis similes esse scribit. Columella autē rusticam non dissimilem esse uillicatæ tradit. Varro Africanas, meleagrides facit, quod & Plinius etiam facere uidetur. Columella autem uarijs notis Africanas à meleagridibus distinguit. Aristoteles Hadrianas gallinas facit uarias, ut Plinius itidem facit, & paruo corpore. Varro Africanas, quas non alias esse constat quàm Hadrianas, uarias & grandes facit. Verūm tanta autorum inter se diffidia componere, penes me non est. Sed quid de generibus istis sentiam, paucis aperiam. Gallina apud nos rustica nusquam reperitur, si gallina illa, quam morhennam uocant non sit, quam uarijs de causis [p. 71] *antè attagenem esse conieci. Columellæ meleagrides uidentur illæ esse aues, quas nonnulli pauones Indicos appellant: nam illas paleis² & cristis cæruleis esse, in confesso est.*

a kok of inde.

DE GALLINAGINE.

Ἀσκαλώπαξ, gallinago, Anglicè a uuod cok, Germanicè eyn holz snepff.

ARISTOTELES³.

Gallinago per fepes⁴ hortorum capitur, magnitudine quanta gallina est, rostro longo, colore attagenæ, currit celeriter, & hominem mirè diligit. Hæc in arbore nunquam⁵ fedet, & humi nidulatur.

¹ A misprint for 'uillicatis.'

² Perhaps the reading should be galeis, cf. p. 69, ll. 6—7.

³ *Hist. An.* Bk IX. 102. 66.

⁴ Aristotle has in addition—ἐρκεσι=in nets.

⁵ *Hist. An.* Bk IX. 66.

colouring. Of certain kinds of birds the eggs are white, as those of Columbæ and Perdices, others are pale, as those of marsh-birds; others marked with spots, as those of Meleagrides and Phasiani.

In those few authors, whose works I have scanned, not a few of the things which they have treated are disputable. First Varro tells us that the wild-bred Gallinæ are not like those of country-houses, but the African; while Columella states that the wild sort is not unlike that of the country-house. Varro makes the Africanæ to be the Meleagrides, which Pliny also seems to do. Yet Columella separates the Africanæ from the Meleagrides by various characters. And Aristotle makes his Hadrianic fowls of various colours, as does Pliny also, and of little size. But Varro makes the Africanæ big and of varied colours, though it is quite clear that they are nothing but the Hadrianic birds. But after all it is not in my power to adjust the mutual differences of authors, when so great; and yet in a few words I will disclose what I think of these kinds. The wild Gallina is not found with us in any part, if it be not that which they name Morhen, and this I formerly conjectured to be the Attagen for several reasons. The Meleagrides of Columella seem to be those birds which some call Indian peacocks¹, for they are admitted to have wattles and blue crests.

OF THE GALLINAGO.

'Ασκαλώπαξ², gallinago, in English a wod cok, in German eyn holtz snepff.

ARISTOTLE.

The Gallinago is taken among the hedges of our gardens; it is of the size of a Gallina, but has a long bill, and the colour of the Attagena: it runs with speed, while it is wonderfully fond of man. This bird never sits on a tree and it nests on the ground.

¹ Turner was, of course, wrong in his conjecture.

² Turner makes σκολόπαξ the same as ἀσκαλώπαξ.

Gallinagines apud nostrates nunquam, nisi hyeme uidentur, quare de prole & modo nidulandi, nihil habeo, quod dicā. Capitur apud Anglos diluculo potissimum & crepusculo in syluis, retibus in loco arboribus uacuo, suspensis, & ueniente aue demissis.

DE COLIO, SIVE GALGULO¹, UT VERTIT GAZA,
EX ARISTOTELE.

[p. 72] Galgulo magnitudo quanta ferè turturi est: color luteus, lignipeta hic admodum est, magna'que ex parte macerie² pascitur, uocẽ emittit grandem, incola maximè Peloponesi hæc auis est.

Omnia, quæ Aristoteles hæctenus colio, siue galgulo tribuit, Anglorum kuhulo, & Germanorum grunspecht (si incolam maximè esse Peloponesi exceperis) conueniunt. Nam turturem ferè magnitudine æquat, lignipeta est: maceriem contundit, & uocem grandem emittit. Sed nihil hic definitio, sed inquirio tantum. Galgulus Plinio ieteros Græcè dicitur, & Aristoteli, si Theodoro fidimus, etiam κελεός. Quanquam mihi textum Græcum consulenti, alia auis κολιός, & alia κελεός uidetur: nam κολιός ἐστὶ ξυλοκόπος σφόδρα, καὶ νέμεται ἐπὶ τῶν ξύλων τὰ πολλὰ. Id est, colius est lignipeta ualde, & magna ex parte ad ligna pascitur, ὃ μὲν γὰρ κελεός παρὰ ποταμόν οἰκεῖ καὶ λόλμας³, quæ uerba Theodorus circa fruteta & nemora reddidit sed rectè'ne an secus, doctis iudicandum relinquo. Vidi in Alpiibus abieti insidentem auem, magnitudine turturis, uiridibus ueluti maculis in luteo distinctam, quæ tota corporis effigie

[p. 73] *picū Martium retulit, sed caput reliquo corpori (secus*

¹ *Hist. An.* Bk VIII. 44.

² Possibly a misprint for 'materie.'

³ *Hist. An.* Bk IX. 22. In his errata Turner alters λόλμας to χλόχμας, but evidently he means λόχμας.

Woodcocks are never seen with us save in the winter, wherefore I have naught to say about their young or mode of nesting. They are chiefly caught in England in the woods at daybreak and at dusk, by means of nets hung in some place devoid of trees, and dropped when the bird comes.

OF THE COLIUS, OR GALGULUS, AS GAZA RENDERS IT, FROM ARISTOTLE.

Of the Galgulus the size is almost that of the Turtur: it is yellowish in colour, and hacks timber very much, and for the most part feeds on trees: it utters a loud cry. This bird is mainly an inhabitant of the Peloponnese.

All that Aristotle has so far attributed to the Colius or Galgulus is in agreement with the Huhol of the English and the Grunspecht of the Germans (if one may except its being chiefly an inhabitant of the Peloponnese). For it is nearly equal to the Turtle-Dove in size; it hacks the timber, hammers rotten wood, and utters a loud cry. But I give no decision here, I only ask. The Galgulus of Pliny is said to be called the Icteros in Greek, and if we trust to Theodorus [Gaza] is also the *κελεός* of Aristotle. Though, on consulting the Greek text *κολιός* seemed to be one bird, and *κελεός*¹ another, for the reading was:—*κολιός ἐστὶ ξυλοκόπος σφόδρα, καὶ νέμεται ἐπὶ τῶν ξύλων τὰ πολλά*. That is, the Colius is especially a wood-hunter and for the most part feeds on wood, *ὁ μὲν γὰρ κελεός παρὰ ποταμὸν οἰκεῖ καὶ λόχμας*, which words Theodorus renders “around the thickets and the groves,” but whether rightly so or otherwise I leave to be decided by the learned. In the Alps I saw sitting upon a fir a bird of the size of a Turtle-Dove, marked as it seemed with green patches on yellow, which to me in the whole aspect of the body called to mind the *Picus Martius*, save that its head was like in colour to the rest of its body

¹ Turner appears to have had a text with the word *κελεός* in one place instead of *κολιός*.

atq; in pico fit) colore fuit simile, tibijs fuit breuibus, et capite erecto, & rostro longiusculo. An hæc galguli species fuerit, nihil statuo, sed fuisse suspicor.

DE GRACVLIS.

Erasmus in eruditissimo adagiorum opere, quoties κολοιός occurrit (occurrit aut non raro) graculum reddit. Theodorum Gazam hac in re, licet aliàs libenter, minimè secutus, qui κολοιον semper monedulam uertit. Ego quoq; hac in re Erasmus potius quàm Gazam, uarijs de causis, imitari decreui:

ARISTOTELES SECUNDUM TRANSLATIONEM GAZÆ¹.

Monedularum tria sunt genera: unum, quod graculus uocatur, magnitudine quanta cornix, rostro rotundo, rutilo. Alterum, lupus cognominatum, paruū & scurra. Tertium, quod familiare, Lydiæ ac Phrygiæ terræ, idemq; palmipes est.

- [p. 74] *Primum graculorum genus, quod Græci κορακίαν uocant, Plinio Pyrrhocorax est, Anglis a cornish choghe, Germanis eyn bergdöl, cornice paulò minor est, rostro luteo, paruo, & in fine nonnihil adunco, frequens est in alpidibus, & apud Anglos in Cornubia, uocem habet monedula acutiorem, & magis querulam. Secundum genus λύκος καὶ βωμολόχος, Græcè dictum, Latinis propriè monedula, quasi monetula à moneta dicitur, quam sola auium, ut inquit Plinius, furatur. Aurum non omnia tria genera furantur, sed secundum genus tantum, quare*

Monedula.
Plin. li. 10.

¹ *Hist. An.* Bk IX. 100.

(otherwise than it is in *Picus*), and the legs were short, the head was upright, the beak rather long. As to whether this may have been a kind of *Galgulus*, I do not certify, but I suspect it to have been.

OF THE GRACULI.

Erasmus in his very learned work on Proverbs, as often as *κολοιδῶς* occurs (and it occurs not seldom) renders it by *Graculus*, in this thing following by no means Theodorus Gaza—though at other times he does so freely—who in every case renders *κολοιδῶς* by *Monedula*. And in this thing I also have determined for divers reasons here to imitate Erasmus rather than Gaza.

ARISTOTLE ACCORDING TO THE TRANSLATION OF
GAZA.

Of *Monedulæ* there are three sorts: the first, which is called *Graculus*, in size as big as *Cornix* with a curved red bill. The next, also named *Lupus*, small, and a mimic. The third, which is well known in *Lydia* and *Phrygia*, is web-footed.

Now the first kind of *Graculi*, which the Greeks call *κορακίας*, is the *Pyrrhocorax* of *Pliny* and the *Cornish Choghe* of *Englishmen*, *eyn bergdöl* of the *Germans*. It is a little smaller than the *Cornix*, with a yellow bill¹, not large, and somewhat hooked towards the tip, it is abundant in the *Alps* and in *Cornwall* in *England*. It has a sharper and more querulous cry than the *Monedula*. The second sort called *λύκος* and *βωμολόχος* in *Greek*, is by the *Latins* strictly named *Monedula*, as if it were *Monetula*, from the *Moneta* [money] which alone of birds, as *Pliny* says, it steals. The three kinds do not all steal gold—only the second does—

¹ Here there is an evident confusion between the Chough (*Pyrrhocorax graculus*) with its red bill, and the yellow-billed Alpine Chough (*P. alpinus*).

secundum genus solum erit monedula, de cuius furacitate pulchrè etiã his uersibus scribit Ouidius¹:

*Mutata est in auem, quæ nunc quoq; diligit aurum,
Nigra pedes, nigris uelata monedula pennis.*

Phalacro-
corax.

Monedulã Angli uocãt, a caddo, a chogh or, a ka. Germ. eyn döhl, & Saxon. eyn älfte. Multò minor est pyrrhocorace monedula, & in syluis nidulatur, & in cauis arboribus, & in templorũ turribus. Tertium genus, Aristoteles 8 libro historiæ animalium² ita describit: Palmipedum grauiore circa lacus & amnes uerfantur, ut anas, phalaris, urinatrix. Ad hæc [p. 75] bosca similis anati, fed minor, & qui coruus appellatus est, cui magnitudo quanta ciconiæ, fed crura breuiora, palmipes natansq; est, colore niger, infidet arboribus & nidulatur in ijs. Hęc Aristoteles. Coruus iste, nisi fallar, Plinio phalacrocorax est, & Heluetiorum Vualtrapus, de quo Plin. ad hunc modum scribit³: Iam & in Gallia Hispaniaq; capitur attagen, & per alpes etiam, ubi & phalacrocoraces, Balearium infularum peculiare: ficut & alpium pyrrhocorax. Et alibi de eodem⁴: Quædã animalium naturaliter caluent, ficut struthiocameli, & corui aquatici, quibus apud Græcos nomen est inde.

Phalacro-
corax .i.
coruus cal-
uus.

¹ *Metamorph.* Lib. VII. ll. 467—8.

² Bk VIII. 48.

³ *Hist. Nat.* Lib. X. cap. XLVIII.

⁴ *Op. cit.* XI. cap. XXXVII.

wherefore this second kind alone shall be Monedula; moreover Ovid happily describes its thievish habits in the following lines:—

Was changed into a bird, which even now loves gold,
Monedula the black of foot, in plumage black arrayed.

The English call the Monedula a Caddo, Chogh, or Ka; Germans *eyn döl*; and Saxons *eyn älke*. The Monedula is much smaller than the *Pyrrhocorax*, and nests in woods and hollow trees and towers of churches. The third kind is thus described by Aristotle in the eighth book of his *History of Animals*:—

Of web-footed birds the heavier haunt lakes and rivers, as the *Anas*, *Phalaris*, and *Urinatrix*. Add to these the *Bosca*, which is like the *Anas* but smaller, and that which is called *Corvus*, whose size is that of a *Ciconia*, but it has shorter legs; it is web-footed and a swimmer: black in colour, it perches on trees, and nests in them. So far Aristotle.

Unless I err, this *Corvus* is the *Phalacrocorax* of Pliny and the Swiss *Waltrapus*¹, of which Pliny writes after this fashion:—

Further, the *Attagen* is caught in Gaul and Spain, and even on the Alps, where *Phalacrocoraces* also are, proper to the Balearic isles, as the *Pyrrhocorax* is to the Alps.

And in another place of the same bird:—

Some animals are naturally bald, as *Struthiocameli* and *Corvi Aquatici*, whence is their name among the Greeks.

¹ Mr Rothschild identifies this bird with *Comatibis comata*=*C. eremita* (L.), no doubt rightly. See *Bull. Brit. Orn. Club*, XII. p. 56. *Novitates Zoologicae*, 1897, p. 371, and Pliny, Lib. x. cap. xlvi.

Iam ut sciatis qualis nam avis sit Heluetiorum Vualtrapus, quam conijcio phalacrocoracem esse, & tertium genus graculi, avis est corpore longo, & ciconia paulò minore, cruribus breuibus, sed crassis, rostro [p. 76] rutilo, parùm adunco, & sex pollices longo, albam quoque in capite maculam, & eam nudam, nisi malè memini, habuit. Si palmipes sit, & interdum natet, indubitanter tertium graculorum genus esse adfirmarem: uerùm licet auem in manibus habuerim, an palmipes fuerit necne, & caluus, non memini: quare donec isthæc certius nouero, nihil statuam.

Præter hæc tria graculorum genera ab Aristotele descripta, noui & quartum genus, quod in alpibus Rheticis uidi, Aristotelis lupo minus, nigrum & albis maculis per totum corpus, more sturni distinctum, garrulitate superiora genera multùm superans, semper in syluis & montibus degens: cui Rheti nucifragæ nomen, à nucibus quas rostro frangit & comedit, indiderunt.

Graculus
nucifrag⁹
eyn nouf-
brecher.

DE GRUE.

Γερανός, grus, Anglicè a crane, Germanicè eyn frân / oder eyn fränich.

ARISTOTELES¹.

Alia de ultimis propè ueniunt, ut grues faciunt, quæ Scythicis ad paludes Aegypto², unde Nilus profluit, ueniunt: quo in loco pug- [p. 77] nare cū pygmeis dicuntur. Non enim id fabula est, sed certè genus tum hominum tum etiam equorum pusillum, ut dicitur est, deguntq; in cauernis, unde nomen troglodytæ, à fubeundis cauernis accepere. Grues³ etiam multa prudenter faciunt: loca enim longinqua petunt, fui commodi gratia, & altè uolant, ut procul prospici-

¹ Hist. An. Bk VIII. 75—76.

² A variant reading is τὰ ἄνω τῆς Αἰγύπτου.

³ Hist. An. Bk IX. 70.

And now, that you may know what sort of bird the Switzers' Waltrapus may be, which I conjecture is the Phalacrocorax, and the third kind of Graculus, it is a bird long in the body, which is rather less than that of the Ciconia, and the legs short but stout, the bill reddish, a little hooked, and six inches in length—further it had a white spot on the head, and that, unless my memory fails me, bare. If it be web-footed and swim at times, I should affirm that it undoubtedly was the third kind of Graculus; but, though I have myself had the bird in my hands, I do not now remember whether it was web-footed or not, nor whether it was bald. Wherefore I will determine nothing, until I shall have a surer knowledge of these things.

Besides the said three kinds of Graculi described by Aristotle I know a fourth, which I have seen upon the Rhætic Alps, smaller than Aristotle's Lupus, black and marked with spots of white on the whole body, as a Starling is; it far surpasses all the above-named kinds in chattering; it always lives in woods and mountains. Now to this the Rhetians have given the name of Nucifraga, from the nuts which it breaks with its bill and eats.

OF THE GRUS.

Γερανός, grus, in English a crane, in German eyn krän, or eyn kränich.

ARISTOTLE.

Others come almost from earth's utmost parts, as do the Grues, which come from the Scythians to the Egyptian marshes, whence the Nile flows forth: in which place they are said to fight with Pygmies. And this is no mere fable, but assuredly there is, as it is said, a dwarf race both of men and horses, and they live in caves, whence they have got the name of Troglodytæ, from dwelling in caves. The Grues furthermore do many things with prudence, for they seek for their convenience distant places, and fly high that they may look out far, and, if they shall

cere possint, & si nubes tempestatem'ue uiderint, conferunt se in terrā, & humi quiescūt. Ducem etiam habent, & eos, qui clament, dispositi¹ in extremo agmine, ut uox percipi possit. Cū consistunt, cæteri dormiunt, capite subter alam condito, alternis pedibus insistentes. Dux detecto capite, prospicit, & quod fenferit, uoce significat.

Pipers.

Vipiones Plin. dicuntur minores grues & iuniores, [p. 78] ut pipiones iuniores dicuntur columbæ. Apud Anglos etiam nidulantur grues in locis palustribus, & earum pipiones sæpissimè uidi, quod quidam extra Angliam nati, falsum esse contendunt.

DE HIRVNDINE.

Χελιδών, *hirundo*, Anglicè à *suuallouue*, Germanicè *eyn schwalb*. Saxonibus est *eyn swale*.

ARISTOTELES².

Hirundo carnibus uescitur, bis in anno parit, & tota hyeme latet. Omnino ratio brutorum, magnā refert uitæ humanę similitudinem magisq; in minori genere, quàm in maiore. uideris intelligentiæ rationem, quod primum in auium genere hirundo in effingendo cõstituendoq; nido ostendit, confingit implicito luto, festucis ad normam lutariæ paleationis, & si quãdo luti inopia est, se ipsa madefaciens, uolutat in puluerem omnibus pennis. Stragulum etiam facit more hominum duriore primùm subijciens, & modicè totum consternens, pro fui corporis magnitudine.

¹ 'dispositi' is here apparently attracted to 'qui.'

² Four passages are incorporated in Turner's selection:—*Hist. An.* Bk VIII. 39, Bk VI. 36, Bk VIII. 107 and Bk IX. 51, 52.

have seen clouds or a storm, betake themselves to earth, and take rest on the ground. They have a leader also and those who, disposed at each end of the band, may call out, that their voice may be perceived. The others sleep when they alight, with the head hidden underneath the wing, standing alternately on either foot. The leader gazes round him with uncovered head, and by his cry gives notice of whatever he perceives.

The smaller, that is younger, Cranes are called by Pliny Vipiones, as young Doves are known as Pipiones. Cranes, moreover, breed in England in marshy places, I myself have very often seen their pipers¹, though some people born away from England urge that this is false.

OF THE HIRUNDO.

Χελιδών, hirundo, in English a swallowe, in German eyn schwalb. Among the Saxons it is eyn swale.

ARISTOTLE.

The Hirundo feeds on flesh, and lays eggs twice a year, for the whole winter also it lies hid. The way of brutes upon the whole bears a marked likeness to the life of man, and more so in the smaller than the larger kinds. One may observe the understanding way which the Hirundo foremost in the ranks of birds shews in the constitution and construction of its nest. It builds it by applying mud to straws, after the rule of daub and wattle work, and if there ever be a scarcity of mud, it wets itself and rolls itself in dust with all its feathers. It moreover makes a bedding after the manner of men, first laying a foundation of the harder stuff below, and moderately covering the whole in proportion to its size.

¹ Young pigeons are still called Pipers in England.

PLINIUS¹.

Hirundines luto construunt, stramento roborant. Si quando inopia est luti, madefactum multa aqua pennis puluerem spargunt. Ipsum uerò nidum mollibus plumis floccisque confternunt, tepefaciendis ouis, simul ne durus sit infantibus pullis.

Secundū. Alterum genus est hirundinum rusticarum & agrestium, quæ rarò in domibus, diuersos figura, sed eadē materia nidos confingunt, totos fupinos, faucibus porrectis in angustum, utero [p. 80] capaci: mirum qua peritia occultandis habiles pullis, & substernendis molles.

Tertium. Tertium hirundinum genus est, quæ ripas excauant, atque ita †internidificant. Non faciunt hæ nidos, migratque multis diebus antè, si futurum est, ut auctus amnis attingat.

DE APODIBUS, EX ARISTOTELE².

Nonnullæ aues depedes³ sunt, quæ ob eam rem apodes à paruitate pedum nuncupantur. quod genus auiculæ, pennis plurimum ualet, sicut & cætera quoque propè similia, ut pennis præualere, sic pedibus degenerare uidentur. ut hirundo & falcula siue riparia⁴. Hæc enim omnia, & moribus, & uolatu, & specie proxima [p. 81] inter se conspiciuntur. Apparet apes omnibus anni temporibus: riparia æstate tantum cum imber incessit: tum enim & apparet & capitur.

Riparia siue falcula

¹ *Hist. Nat.* Lib. x. cap. xxxiii.

² *Hist. An.* Bk I. 10.

³ *κακόποδες* in the Greek.

⁴ These two words are probably interpolated.

PLINY.

Hirundines build nests of mud, and strengthen them with straw. And if there ever be a scarcity of mud, they sprinkle a good store of water from their feathers on the dust, which is thus moistened. The nest itself they further line throughout with soft feathers and wool, to thus keep the eggs warm, and also that it may not be too hard for the young chicks.

There is another sort of the Hirundines of the country and the fields, which rarely build their nests in houses, different in shape, but of the same material, and facing wholly upwards, having entrances prolonged into a strait with a capacious belly¹; it is wonderful how skilfully they are adapted for concealing young, and soft for them to lie upon.

There is a third kind of Hirundines which bore in banks, and thus breed within holes. These make no nests, and migrate many days before, if it be likely that the stream in flood should reach them.

OF THE APODES, FROM ARISTOTLE.

Some birds are weak-footed, and for that reason from the smallness of their feet are known as Apodes. This kind of little bird is very strong upon the wing, just as some others that are nearly like it seem to lose in strength of foot proportionately as they gain in power of flight, as the *Hirundo* and the *Falcula*, in other words *Riparia*. For all these in their habits, flight, and look seem very near each other. The Apes may be seen at all times of the year, but the *Riparia* only in summer, when the rains begin: for then it is both noticed and is caught. In

¹ Pliny evidently refers to *Hirundo rufula*, which builds a flask-shaped nest against a cliff.

Apodes. deniq; rara hæc auicula est. Apodes¹, quos aliq; cypsellos uocant, similes esse hirūdinum, iam dictum est: haud enim ab hirundine discerni possunt, nisi quòd tibijs sunt hirsutis. Nidum specie cistellæ² productæ lōgiùs fictæ ex luto, imò aditu dato arctissimo faciunt, idq; locis angustis³, intrà saxa & specus, ut & belluas, & homines possint deuitare.

PLINIUS⁴.

Apodes. Plurimū uolant, quæ apodes uocātur, quia carēt ufu pedum. Ab alijs Cypseli appellantur, hirundinum specie. Nidificant in scopulis. Hæ [p. 82] sunt, quæ toto mari cernuntur: nec unquam tam longo naues, tamq; continuo cursu, recedunt à terra, ut non circumuolitēt eas apodes. Cætera genera residunt, & insunt: his quies nisi in nidis nulla: aut pendent, aut iacent. *Hactenus Plinius & Aristoteles.*

Aristoteles tria tantum hirundinum genera facit: domesticas, apodes, & falculas. Plinius autem quatuor genera facere uidetur: domesticas, rusticas, apodes & riparias. Quod si uerum sit, hirundines domesticæ, sanguinolento pectore nobiles, erunt primum genus. Secundum genus maximæ illæ. & nigerrimæ hirundines gregatim plerumq; uolantes, facere uidentur. Tertium genus, hirundines quæ in summis turribus & altis templorum fenestris nidulantur, efficiunt. Quartum genus ripariæ siue falculæ erunt. Quòd si ista diuisio parum arrideat, ad primum genus referantur hirundines illæ in domibus rusticorum semper nidificantes, quæ à reliquis generibus, duæ sanguinolentæ

Hirūdines
domesticæ.

¹ *Hist. An.* Bk IX. 108.

² κυψέλεσιν is the word in Greek.

³ στενωψ; another reading is στεγνψ = under cover.

⁴ *Hist. Nat.* Lib. X. cap. xxxix.

short this little bird is rare. The Apodes, which some call Cypseli, are like Hirundines, as has been said before, for they are not to be distinguished from the *Hirundo*, save by having hairy legs. The nest which they construct looks like a little basket formed of mud somewhat drawn out, an entrance of the straitest opening beneath; and this they place in cracks within the rocks and caves, that they may avoid both beasts and men.

PLINY.

The birds which, because they cannot use their feet, are called Apodes, live chiefly on the wing. They are named Cypseli by some, in aspect they are like Hirundines. They nest in crags. These are they which are seen on all parts of the sea, nor do ships ever leave the land upon so long or so continuous a course but that the Apodes still fly around them. The other kinds alight and settle, but for these there is no rest save in their nests alone, they either hang or lie. So far Pliny and Aristotle.

Now Aristotle makes only three kinds of Hirundines, those of the house, the Apodes and the *Falculæ*. Yet Pliny seems to make four kinds, those of the house, the *Rusticæ*, the Apodes, and the *Ripariæ*. If that be true, our House Swallows, well known from their blood-coloured breast, will be the first-named kind. Those very large and black Swallows, that mostly fly in flocks, appear to form the second kind. Those Swallows which make nests upon the tops of towers, and in lofty church windows, constitute the third. And the *Ripariæ* or *Falculæ* will be the fourth. But should the said division not approve itself, then to the first-named kind may be referred those Swallows which invariably build on the houses of the country people. Two patches of a blood colour, which one may see on each side

maculæ, quas utrinque in pectore uideas, distinguunt, quod Ouidius¹ his uersibus pulchrè ostendit:

[p. 83] *Altera tecta subit, nec adhuc de pectore cædis
Excessere notæ, signataq; sanguine pluma est.*

*Hoc primum genus Angli a suuallouu nominât
& Germani eyn schwalb.*

Apodes.

*Secundum genus faciunt apodes tam maiores quàm
minores. maiores uoco maximas illas hirundines, gre-
gatiim & altiùs cæteris uolantes, quæ in arbore, more
hirundinum aliarum nunquam consistere uisuntur. mi-
nores uoco, quæ in scopulis, templorum fenestris æditi-
bus & summis turribus nidos figunt. Maiores Germani
uocant geyr swalben, Angli the great suuallouues. Mi-
nores Angli uocant rok martinettes or chirche martnettes,
Germani uocant fitch swalben.*

Falcula siue
riparia

*Tertium genus, quod in ripis nidulatur, Angli a
bank martuet², Germani eyn über³ swalbe, aut speiren
nominant.*

DE HÆMATOPODIBUS, EX PLINIO⁴.

Rostrum & prælonga crura hæmato-
podi⁵ sunt, multò Porphyrione minori: quâquam
[p. 84] eadem crurum altitudine. Nascitur in Aegypto.
Insistit ternis digitis, præcipuum ei pabulum
muscæ. Vita in Italia paucis diebus.

*Est apud Anglos in locis palustribus auis quædam
longis & rubris cruribus, nostra lingua redshanca dicta,
cui an descriptio hæmatopodis Pliniani conueniat nec-
ne, qui apud Anglos degunt, inuestigent & examinent.*

DE IUNCO.

*Σχόικελος, iunco, Anglicè a rede sparrouu, Ger-
manicè eyn reydt müß. Iunco, ut scribit Aristoteles octauo
historiæ animalium, & capite tertio, ad ripas lacuum &
fluminum uisitatur, & caudam frequenter motitat, & ex
eodem constat, auem esse paruam: nam turdo minorem*

¹ *Metam.* Lib. vi. ll. 669—70.

² A misprint for 'martnet.'

³ A misprint for 'üfer.'

⁴ *Hist. Nat.* Lib. x. cap. xlvi.

⁵ Another reading is 'Himantopus,' but the Stilt-Plover has not a red bill.

of the breast, distinguish these from the remaining sorts, as Ovid prettily sets forth in these verses:—

“The other haunts our roofs, nor have the marks of slaughter yet departed from its breast, and its plumage is stained with blood.”

The English call this first kind a Swallow, and the Germans *eyn schwalb*.

The Apodes, the greater and the less, compose the second kind. I call greater those very great Swallows that fly in flocks, and higher than the rest, which are never observed to settle on a tree, after the manner of our other Swallows. I call less those which fix their nests to rocks, lofty church windows and the tops of towers. The greater kind the Germans call *geyr swalben*, and the English the Great Swallows; but the less the English call *rok martinettes* or *chirche martnettes*, the Germans *kirch swalben*.

The third kind, that which breeds in banks, the English name a bank martnet, the Germans *eyn ufer swalbe* or *speiren*.

OF THE HÆMATOPODES, FROM PLINY.

The Hæmatopus has its bill and very long legs red, and is much less than the Porphyrio, though of the same height of leg. It is native in Egypt. It stands on three toes to a foot; flies are its favourite food. It lives in Italy but a few days.

There is in marshy places in England a certain bird with long red legs, called Redshank in our tongue, but whether the description of the Hæmatopus of Pliny agrees with this or not let those who live in England seek out and enquire.

OF THE JUNCO.

Σχοίνικλος, junco, in English a rede sparrow, in German *eyn reydt müss*.

The Junco, as Aristotle writes in the eighth book of his History of Animals, and in the third chapter, lives on the banks of lakes and streams, and flirts its tail continually; and it is clear from him that it is a small bird, for he makes

facit. Ego igitur quum nullam aliam nouerim auiculam, iuncis & harundinibus insidentem, præter Anglorum passerem harudinarium, illum iunconem esse iudico. Avis est parua, passere paulò minor, cauda longiuscula & capite nigro. cætera fusca.

DE LINGULACA, EX ARISTOTELE¹.

[p. 85] Lingulaca, quæ Græcè γλώττις dicitur linguam exerit longam, unde nomē habet, una est è coturnicum ducibus, formam habet auium lacustrium.

DE LAGOPODE EX PLINIO².

Præcipuo sapore lagopus est : pedes leporino uillo ei nomen hoc dedere. Cetero candidè³, columborum magnitudine, non extra terram⁴, in qua nascitur, eam uesci : quando nec uiua manfuescit, & corpus occise, statim marcescit. Est & alia, nomine eodem, à coturnicibus magnitudine tantum differens, croceo tinctu cibus
† gratissima. † aptissima. *Huius hoc uersu Martialis⁵ meminit:*

Si meus aurita gaudet lagopede Flaccus.

DE LIGVRINO SIVE SPINO.

Ακανθίς, spinus, sive ligurinus, Anglicè, a grene finche, ut conijcio, Germanicè, eyn firshinck.

ARISTOTELES⁶.

[p. 86] Ligurini, & uita & colore ignobiles sunt, sed ualent uocis amœnitate⁷, & ex auium albo sunt, quæ carduorum femine uescuntur⁸. Florus, spinus, & ægithus, odium inter se exercēt. Spinus etiam bellum cum asino gerit.

¹ *Hist. An.* Bk VIII. 83.

² *Hist. Nat.* Lib. X. cap. xlvi.

³ After 'dedere' substitute a comma for the full stop.

⁴ Pliny seems to have written 'facile' here, in addition.

⁵ *Epigr.* Lib. VII. lxxxvi.

⁶ Three passages are here combined:—*Hist. An.* VIII. 42, IX. 22, IX. 92.

⁷ The words of Aristotle are φωνὴν μέντοι λεγυρὰν ἔχουσιν.

⁸ See p. 35.

it less than a *Turdus*. Therefore, since I know no other little bird which sits upon the rushes and the reeds, save the Reed Sparrow of the English, I believe that kind to be the *Junco*. Now this bird is small, a little smaller than a Sparrow, with a longish tail, and a black head. The other parts are brown.

OF THE LINGULACA, FROM ARISTOTLE.

Lingulaca, in Greek called *γλωττίς*, puts forth a long tongue, whence comes its name; it is one of the leaders of *Coturnices*, it has the form of a lake-haunting bird.

OF THE LAGOPUS, FROM PLINY.

The *Lagopus* is in flavour excellent, its feet shaggy as in a hare have given it this name. Otherwise it is white, in size as the *Columbi*; it is not eaten except in the land of which it is a native, since it is not tameable while living, and when killed its flesh soon putrefies. There is another bird of the same name, differing but in size from the *Coturnices*, most excellent for food with yellow saffron sauce.

Of this Martial makes mention in the following verse:—

If my Flaccus delights in the eared lagopes.

OF THE LIGURINUS OR SPINUS.

Ἀκανθίς, spinus, or ligurinus, in English a grene finche, as I suppose, in German *eyn kirsfincke*.

ARISTOTLE.

The *Ligurini*, commonplace in mode of life and colour, yet excel in pleasantness of song. And they are of the list of birds which feed on thistle-seed. The *Florus*, the *Spinus*, and the *Ægithus* shew mutual dislike. The *Spinus* wages war moreover with the *Ass*.

Spinum Aristotelis grenefincam nostram esse arbitror: nam illa inter spinas plurimum degit, & ex herbarum feminibus uictitat. Auis, quam spinum esse iudico, magnitudine passerem æquat, tota uiridis est, præsertim mas in hoc genere, fœmina ferè pallida est. uescitur carduorum maiorum semine & lapparum, ut auriuittis minorum, nidulatur in ramis salicū aut prunorum syluestriū. cantat amœnè, & cibum & potū è situlis haurire non recusat.

Sed obijciat mihi forsitan quispiam, hanc colore uiridi adeoq; amœno, non posse spinum esse, quem Aristoteles colore ignobilem esse testatur. Sciat uelim, qui hoc mihi obijcit, eundem Aristotelem uiridem colorem damnare, etiam in aue, quæ tota uiridis est, & à uiriditate nomen accepit. Verba Aristotelis¹ hæc sunt: Vireo², qui totus uiridis est, docilis & ad uitę munera [p. 87] ingeniosus notatur, sed malè uolat, nec grati est coloris. Hæc Aristoteles.

DE LVTEA.

Χλωρεὺς, luteus siue lutea, Anglicè a yellow ham, a youulryng. Germanicè eyn geelgorst.

ARISTOTELES.

Luteus à colore partis suæ inferioris pallido dictus, magnitudine alaudæ est. Parit oua quatuor aut quinque. Nidum sibi ex symphyto firpitus euulso facit. Sed stragulum subijcit ex lana & uillo.

¹ *Hist. An.* Bk IX. 98, 89.

² *Χλωρίων.*

I think that Aristotle's Spinus is our Grenefinc, for it lives for the most part among thorns, and feeds upon the seeds of grasses. The bird which I believe to be the Spinus in its size equals a Sparrow, and is wholly green, and in this kind the male especially, the female being somewhat pale. It feeds upon the seeds of bigger thistles and of burdocks, as the Aurivittis does upon the smaller; and it nests on branches of the willow or wild plum. It is a pleasant songster, and does not refuse to draw its food and water up in little buckets.

But some one may perhaps object to me that this bird with its green and somewhat pretty colour cannot be the Spinus, inasmuch as Aristotle testifies that it is commonplace in colour. I should like the man who thus objects to me to know that Aristotle equally condemns green colour even in a bird which is entirely green, and from its greenness has received its name. These are the words of Aristotle:—

“The Vireo, which is entirely green, is singled out as easy to be taught, and clever for the business of life; but it flies badly and its colour is unpleasing.”

So far Aristotle.

OF THE LUTEA.

Χλωρεύς¹, luteus or lutea, in English a yellow ham, a yowlryng, in German eyn geelgorst.

ARISTOTLE.

The Luteus, so named from the pale colour of its lower parts, is of the size of an Alauda. And it lays four eggs, or even five. It builds itself a nest of comfrey torn up by the roots, but spreads within a covering of wool and hair.

¹ Aristotle in his *History of Animals* mentions three birds, χλωρίς, χλωρίων, and χλωρεύς: but Turner's quotation with regard to χλωρεύς is found in Aristotle under χλωρίς in a passage (*Hist. An.* Bk IX. 83) where there seems to be no alternative reading.

Auicula, quam luteum esse credo, passere paulò maior est. Maris pectus & uenter lutea sunt: feminae uerò pectus luteum, & uenter pallidus est, in capite dorso & alis, pennis fuscis luteae intermiscuntur. Rostrum utriusque firmum & breue, in quo tuberculum quoddam dentem mentiens, reperias, præter uermes, hordeo & auena libenter uescitur. Cauda huius auiculæ longiuscula est, & frequenter motitans.

DE LVTEOLA.

Χλόρις, *luteola*, Anglicè *a fiskin*, Germanicè *eyn* [p. 88] *jeysich*, quibusdam *eyn engelchen*.

Luteola, lutea superius descripta, multò minor est, & colore ad uiriditatem magis tendente, pectore luteo est, & rostro longiusculo, tenui & acuto, auriuitis simili, duas habet maculas nigras: alteram in fronte, alteram sub mento, cantillat non insuauiter. Rara apud Anglos hæc est, nec usquam ferè alibi quàm in caueis cernitur. Semel tamen in Cantabrigianis agris uidisse recordor. Huius generis sunt, quas Anglia aues canarias uocat.

DE LVSCINIA.

Λιδών, *luscinia, philomela*, Anglicè *a nyghtyngall*, Germanicè *eyn nachtgâl*.

ARISTOTELES¹.

Parit *luscinia* ætate quinq; aut sex oua, conditur ab autumno usq; ad uernos dies, *luscinia*² canere solet affiduè diebus ac noctibus quindecim, cum *fylua*³ fronde incipit opacari. dein canit quidem, sed non affiduò, mox adulta ætate uocem mittit diuersam, nõ insuper uar[ia]m, aut celerem⁴ modulatamq;, sed simplicem,

¹ *Hist. An.* Bk. v. 31.

² *Hist. An.* Bk. ix. 255.

³ Aristotle has *ōpos* (mountain) here.

⁴ Or *τραχέαν* = harsh.

The little bird, which I believe to be the *Luteus*. is somewhat bigger than a Sparrow. It is yellow on the breast and belly in the cock; but in the hen the breast is yellow and the belly pale. Yellow are mixed with dark feathers upon the head, back, and wings. In each of them the beak is short and stout, and on it one may find a sort of knob that simulates a tooth. Apart from worms it eats barley and oats freely. The tail of this small bird is rather long and is in constant motion.

OF THE LUTEOLA.

Χλωρίς, *luteola*, in English a siskin, in German *eyn zey-sich*, or of some *eyn engelchen*.

The *Luteola* is much smaller than the *Lutea* above described, and with a colour tending more to green. It has a yellow breast, a longish, slender, pointed bill, like that in *Aurivittis*, and two spots of black, one on the forehead, one beneath the chin; it warbles with some sweetness. In England it is rare, and scarcely to be seen elsewhere than in cages. Yet I remember having seen it once among the fields of Cambridgeshire. Of this kind are those which England calls Canary birds¹.

OF THE LUSCINIA.

Ἀηδών, *luscinia*, *philomela*, in English a nyghtyngall, in German *eyn nachtgäll*.

ARISTOTLE.

In summer the *Luscinia* lays five or six eggs, but from autumn it lies hid continually until the days of spring. Now the *Luscinia* is wont to sing incessantly for fifteen days and nights, when woods begin to become dark with foliage. Later it sings indeed, but not incessantly, then in the height of summer it gives forth a different note, not varied over and above, or quick and modulated, but a simple

¹ Gesner, the first to describe the Canary-bird, states that Turner informed him of it.

colore etiam immutatur, & quidem in terra Italia per id tempus alio nomine appellatur, apparet non diu, abdit enim fese & latet.

Aristoteles præter unam notam nullam ostendit peculiarem, qua ab alijs auibus luscinia differret, ea autem est quòd linguæ summæ acumine careat. Quamquam & hoc etiam cum atricapilla commune habet. Colore luscinia, & corporis magnitudine auiculam illam proximè refert, quam Angli lingettam, & Germani Graefmufch. passerem gramineum nominant. Passere paulò minor est, & tenuior, & longiori corporis figura, color pectoris ferè cinereus est, cætera subfusca.

DE MERGO.

Αἰθυία, mergus, Anglicè à cormorant, German. eyn dūcher.

ARISTOTELES¹.

Mergus marina auis est, ex piscium uenatu uicitans, subit tamè altiùs in fluuios. Mergus [p. 90] & gauia² faxis maritimis oua bina aut terna pariunt. Sed gauiæ ætate, mergi à bruma, ineunte uere. Incubant more cæterarum auium, sed neutra earum auium conditur.

Mergus. *Mergus, auis est magnitudine ferè anseris pulla, rostro longo & in fine adunco, palmipes est, & corpore graui, forma corporis auis sedenti, erecta est. Plinius in arboribus nidulari scribit, at Aristoteles in faxis maritimis. Quod uterq; aut uidit, aut à referentibus aucupibus didicit, scripto mandauit. Et ego utrumque obseruauit, nam in rupibus marinis iuxta hostiū Tinæ fluuij mergos nidulantes uidi, & in Northfolcia cum*

¹ *Hist. An.* Bk I. 6; Bk VIII. 48, freely rendered.

² *Hist. An.* Bk v. 30.

sound. It also changes colour, and during that time is known, at least in the land of Italy, by another name; it is not seen for long, since it conceals itself, and so lies hidden.

Aristotle provides no special mark, save one, by which the *Luscinia* differs from the rest of birds, and that is that it lacks the point at the tip of the tongue. Though even this it has in common with the *Atricapilla*. In colour and in size of body the *Luscinia* comes nearest to that little bird which Englishmen call *Lingett* and the Germans *Grass-Sparrow*. It is a little smaller than a Sparrow and more slender, with a longer shape of body, and the colour of the breast is nearly grey; the other parts are brownish.

OF THE MERGUS.

Αἰθυία, *mergus*, in English a cormorant, in German *eyn dücher*.

ARISTOTLE.

The *Mergus* is a sea-bird, and it lives by hunting fishes, yet it makes its way somewhat far up the rivers. The *Mergus* and the *Gavia* lay two or three eggs each upon rocks in the sea, the *Gaviæ* in summer and the *Mergi* when the spring arrives after the solstice. They incubate like other birds, but neither of these birds conceals itself.

The *Mergus*, a sad-coloured bird, is nearly equal to a Goose in size, with the bill long and hooked at the end; it is web-footed, heavy in the body, and the attitude is upright in the sitting bird. Pliny writes that it nests on trees, but Aristotle says on sea-rocks. What each man saw or learnt from the reports of bird-catchers he has set down in writing. And I have observed both birds myself, for I have seen *Mergi* nesting on sea-cliffs about the mouth of the Tyne river, and on lofty trees in Norfolk with the

ardeis in excelsis arboribus. Qui in rupibus maritimis nidificant, ex præda marina ferè uiuūt, qui uerò in arboribus, amnes, lacus, & fluuios, uictus causa petunt.

DE MEROPE EX ARISTOTELE¹.

Merops.

Sunt, qui meropes genitorum fuorum fenectum educare confirmant, uicemq; reddi, ut parentes non modò fenescentes, uerùm etiã cùm iam datur facultas, alantur opera liberorum: nec matrem aut patrem exire, sed in cubili manentes, pasci labore eorum, quos ipsi genuerunt, enutrierunt, educarunt. Pennæ huius auis inferiores pallidæ sunt, superiores cœruleæ sunt ut halcyonis: postremæ pinnulæ rubræ habentur. Parit sex aut septem ætate in præcipitijs mollioribus, intrà uel ad quatuor cubita subiens, terræ etiã cauernas subiens, cunabula facit.

PLINIUS².

Nec uerò ijs minor solertia, quæ cunabula in terra faciunt, corporis grauitate prohibente sublimi petere. Merops uocatur, genitores suos reconditos pascens, pallido intus colore pennarum, superne cyaneo, priori subrutilo. Nidificat in specu, sex pedum defossa altitudine.

Meropem ingenuè fateor me nunquam uidisse, nec quēquam cōuenisse, qui aliquando uiderit. Tametsi non sum nescius apud Germanos, grammaticos non indoctos, esse, qui grunspectum suum, meropem esse doceant: sed Aristotele & Plin. reclamantibus. Picus uiridis nidum

¹ *Hist. An.* Bk IX. 82, freely rendered.

² *Hist. Nat.* Lib. X. cap. xxxiii.

Hérons¹. Such as make their nests on sea-cliffs generally live on prey from the sea, but such as breed on trees seek rivers, lakes, and streams to get their food.

OF THE MEROPS, FROM ARISTOTLE.

There are some who insist that Meropes foster the old age of their parents and thus take their turn, so that the parents not in age alone are nourished by the labour of their offspring, but as soon as power is given to these: that neither does the mother-bird fare forth nor yet the father, but they stay within a resting place and are fed by the aid of those which they themselves have bred, nourished and reared. The plumage of this bird is pale beneath, but blue above like that in Halcyon: the pinnules at the end of the wings are reckoned red. It lays six or seven eggs in summer in the softer banks, and makes its nurseries by boring into these for quite four cubits, and it also uses hollows in the soil.

PLINY.

Nor truly is less skill shewn by those birds which make their nurseries in the soil, since the weight of their bodies hinders them from mounting to a height. The kind called Merops feeds its parents in retreat; the colour of its feathers underneath is pale, the upper surface blue, the former being somewhat red. It breeds within a hole, bored out six feet in depth.

In fairness I admit that I have never seen the Merops, nor have I met anyone who ever saw it. Still I am not unaware that there are not unlearned schoolmasters among the Germans, who would teach us that their grunspecht is the Merops, though against the sense of Aristotle and Pliny.

¹ Compare with this Sir T. Browne's *Notes and Letters on the Natural History of Norfolk* (ed. Southwell) p. 11 (1902).

sibi rostro suo in arboribus facit: ubi enim picus arborem tundēs, illam ex sono subcauam esse depræhendit, instante tempore partus, eam in qua postea nidulaturus est, rostro perforat. Nulla uspiam arbor tam alta est, quam impediēte ulla corporis grauitate, non uolatu traicere possit. Pennæ huius quoque superiores sunt uirides, inferioresq; nisi malè memini, luteæ aut saltem pallidæ sunt. quare quum merops prohibente corporis grauitate, in sublime petere, atq; ideo in arboribus nidulari non possit, & superne colore sit cyaneo, Germanorum picus uiridis, quem Britanni à faciendis foraminibus, huholam nominant, merops Aristotelis & Plinij esse non poterit.

Meropem
non esse
Germano-
rum grun-
spechtum.

DE MERULA.

Κορτυφός¹, merula, Anglicè a blak ofel, a blak byrd, Germanicè eyn merl, aut eyn amsel.

[p. 93]

ARISTOTELES².

Merularum duo sunt genera: alterum nigrum & uulgare: alterum candidum, magnitudine quidem compari, & uoce simili, sed circa Cylenam Arcadię familiare, nec usquã alibi nascens. Est etiam ex hoc genere, quæ similis nigræ est, sed fusca colore, & magnitudine paulò minor, uerfari hæc in faxis & tectis solita est, nec rostrum rutilum, ut merula habet. Merula³ etiam & colore, & uoce per tempora immutatur. Nam ex nigra redditur rufa, & uocem emittit diuersam. Strepitat enim per hyemem, quum per æstatem tumultuans cantet.

PLINIUS⁴.

Merula, ex nigra ruffescit, canit ætate,
[p. 94] hyeme balbutit, circa solstitium muta, rostrum

¹ A misprint for κόρτυφος.

² *Hist. An.* Bk IX. 95.

³ *Hist. An.* Bk IX. 254; freely rendered.

⁴ *Hist. Nat.* Lib. X. cap. xxix.

Now the Green Picus makes itself a nest with its own bill in trees: for when a Picus hammering on a tree discovers by the sound that it is hollow at the core, the breeding season being close at hand, it bores that with its bill in which it afterwards intends to nest. There is not anywhere a tree so tall which this bird cannot reach by means of flight, for any weight of body that it has. Its plumage is moreover green above and, if my memory serves me, yellow underneath, or pale at least. Since then the *Merops*, hindered by its weight of body is incapable of rising to a height, and thus of making nests in trees, and has blue upper parts, the grunspecht of the Germans, which the Britons from the holes it makes call huhol [that is, Hew-hole], cannot be the *Merops* known to Aristotle and Pliny.

OF THE MERULA.

Κόττυφος, merula, in English a blak osel, a blak byrd, in German eyn merl or eyn amsel.

ARISTOTLE.

Of *Merulæ* there are two sorts, one black and common, and the other white, of equal size indeed and having a like voice, but which is well-known round Cyllene in Arcadia, and not bred elsewhere. There is of this kind another also, which is like the black, but dull in colour and a little less in size. It usually haunts rocks and roofs, but has not the bill ruddy like the *Merula*. The *Merula* in colour and in voice moreover changes with the season, for it turns from black to rufous, and utters a different cry. For it chatters in winter, but sings lustily in summer¹.

PLINY.

From black the *Merula* turns rufous, in summer it sings, but in winter it babbles, and about the solstice

¹ The readings in Aristotle differ considerably. 'Sings lustily' may go with 'in winter.'

quoq; anniculis in ebur transfiguratur, dūtaxat maribus.

DE MILVO SIVE
miluio.

ἰκτινος, *miluus*, *Anglicè, a glède, a puttok, a kyte*,
Germanicè eyn weye.

PLINIUS¹.

Milui ex accipitrū genere sunt, magnitudine differentes. Iidem uidentur artem gubernandi docuisse, caude flexibus, in cœlo monstrante natura, quod opus effet in profundo. Milui & ipsi hybernis mensibus latent, non tamen ante hirundines abeuntes. Traduntur & solstitijs affici podagra.

ARISTOTELES².

Milui pariunt bina magna ex parte, interdum & terna, totidemq; excludunt pullos. Sed [p. 95] qui Aetolius³ nuncupatur, uel quaternos aliquando excludit.

Duo miluorum genera noui, maius & minus: maius colore propemodum ruffo est, apud Anglos frequens, & insigniter rapax. Pueris hoc genus cibum è manibus in urbibus & oppidis eripere solet. Alterum genus est minus, nigrius, & urbes rariùs frequentans. Hoc genus ut in Germania sæpissimè, ita in Anglia nunquam me uidisse recordor.

DE MOLLICIPITE.

Μαλακοκρανέυς, *molliceps*, *Anglicè a shrike, a nyn murder*, *Germanicè eyn mūrder.*

ARISTOTELES⁴.

Molliceps eodem in loco semper sibi sedem statuit, atque ibidem capitur. Grādi & cartila-

¹ *Hist. Nat. Lib. x. cap. x.*

² *Hist. An. Bk vi. 38.*

³ Other readings are αἰγώλιος and ἐγώλιος.

⁴ *Hist. An. Bk ix. 98.*

it is dumb. In yearlings furthermore the bill puts on a look of ivory, provided they are males.

OF THE MILVUS OR MILVIUS.

Ἰκτινος, milvus, in English a glede, a puttok, a kyte, in German eyn weye.

PLINY.

Milvi are of the race of Accipitres, though differing in size. They seem, moreover, to have taught mankind the art of steering, by the turning of the tail, nature thus shewing in the sky what might be useful in the sea. Milvi lie hidden in the winter months, yet not until Hirundines depart. They are reported also to be affected with the gout about the solstice.

ARISTOTLE.

Milvi lay for the most part two eggs each, but sometimes three, and hatch as many young. But that kind which is named Ætolian at times lays even four.

I know two sorts of Kites, the greater and the less; the greater is in colour nearly rufous, and in England is abundant and remarkably rapacious. This kind is wont to snatch food out of children's hands, in our cities and towns. The other kind is smaller, blacker, and more rarely haunts cities. This I do not remember to have seen in England, though in Germany most frequently.

OF THE MOLLICEPS.

Μαλακοκρανεύς, molliceps, in English a shrike, a nyn murder, in German eyn nuin mürder.

ARISTOTLE.

The Molliceps invariably takes its stand in the same place, and thereat it is caught. It has a big

gineo capite est, magnitudine paulò minor quã turdus, ore firmo, paruo, rotũdo, colore totus cinereo depes¹, & pēnis inualens est, capitur maximè noctua.

Mollicipitem esse arbitror auiculam, quam Germani nuinmurder non sine causa nominant. Porro ut omnibus perspicuum sit, quænam & qualis illa sit, formam auis & mores quanto licebit compendio perstringam. Magnitudine, minimum turdorum genus æquat, è longinquo contēplanti, tota apparet cinerea. Propius autem inspicienti, mentum, pectus & uenter alba apparent, ab utroque oculo ad collum usque, longa & nigra macula, sed nonnihil obliqua porrigitur. Capite tam grandi est, ut aui triplo maiori (modò rostrum longius & maius esset) proportione sua satis responderet. Rostrum nigro est, & mediocriter breui, & in fine adunco, sed omnium firmissimo & fortissimo est, utpote quo manum semel meam duplici chirotheca munitam, sauciauerit, & auium ossa & capita confringat & conterat quàm ocysissime. Ala utraque nigra tota est, nisi quodd alba linea grandiuscula, mediam utrinque alam transfuersim distingat. Caudam picæ similem habet, lōgiusculam nimirum, & uariam. Tibias & pedes pro ratione corporis omnium minimos, & eos nigros habet. Alas habet breues, & ueluti per saltus sursum atque deorsum uolitat. Viuit ex scarabeis, papilionibus, & grandioribus insectis: sed non solis istis, uerumetiam, more accipitris, auibus. Occidit enim regulos, fringillas, & (quod ego semel uidi) turdos. Tradunt etiam aucupes hanc picas quasdam

[p. 97] *syluestres interdum iugulare, & cornices in fugam adigere. Aues, quas occidit, non unguibus, ut accipitres, uolando pernuciter adsequitur, sed ex insidijs adoritur, & mox (quod iam sæpiùs expertus sum) iugulum petit, & cranium rostro comprimit & confringit. Ossa comminuta & contusa deuorat: & quando esurit, tantos carnis bolos in gulam ingerit, quantos rictus oris angustia potest capere. Præter morem etiam reliquarum auium, quando uerior præda contigit, nonnihil in fu-*

Offifraga
dici possit,
si eius illi
magnitudo
adesset.
Nam nec
moribu⁹, nec

¹ ἄπρους. Another reading is εὐπρους.

and gristly head, and is a little smaller than a Thrush in size; the bill is strong but small, and curved; in colour it is wholly grey, while it is weak-footed and feeble on the wing, it is caught chiefly by the Noctua.

The Mollicept I think to be that little bird which Germans call *nuinmurder*, not without a cause. Further that it may be quite clear to all which and what sort of bird it really is, I will touch on its form and habits as compendiously as may be. In size it equals the least of the Thrushes, and to one observing from afar seems wholly grey. And yet, to one inspecting it more nearly, the chin, the breast and belly appear white, and from each eye there reaches to the neck, although somewhat oblique, a long black patch. It has so big a head that (were the bill longer and larger) it assuredly would answer in proportion for a bird of thrice its size. The bill is black and moderately short, and hooked at the tip, but is the stoutest and strongest of all, so much so that the bird once wounded my hand, although protected by a double glove, and very speedily it crushes and breaks up the bones and skulls of birds. Each wing is wholly black, except that a white line of some size marks transversely the middle of the wing on either side. The tail is like that of a Pie, that is to say, longish and particoloured. Of all it has the shortest legs and feet proportionately to its body, and these parts are black. It has short wings, and flies as if by bounds upwards and downwards. It lives on beetles, butterflies, and biggish insects, and not only these, but also birds after the manner of a Hawk. For it kills *Reguli* and Finches and (as once I saw) Thrushes; and bird-catchers even report that it from time to time slays certain woodland Pies, and can put Crows to flight. It does not seize the birds it kills with its claws, after a swift flight, as Hawks do, but attacks them stealthily and soon (as I have often had experience) aims at the throat and with its beak squeezes and breaks the skull. Then it devours the crushed and bruised bones, and when anhungered crams into its gullet lumps of flesh as big as the gape's narrowness can take. Again, beyond the habit of the rest of birds, when prey happens to be more plentiful, it lays by some for future scarcity.

colore ab ea
multum
abludit.

turam penuriã reponit. Muscas enim grandiores & insecta iam capta in aculeis & spinis arborum figit & suspendit: omnium animam facillimè cicuratur, & mansuetacta, carnibus alitur, quæ si fuerint sicciore, aut prorsus exanguis, potum requirit. In Anglia sæpius quàm bis nunquam uidi, in Germania sæpissimè. Nomen huius apud nostros neminem inueni, qui nouerit, præter Dominum Franciscum Louellum, tam animi quàm corporis dotibus equitem auratum nobilissimum. Iam si cui mollicipitis Aristotelis descriptio huic non uideatur per omnia conuenire, tyrannorum albo adscribat, aut auem ostendat, cui descriptio meliùs competat.

DE NOCTVA.

Γλαύξ, noctua, Anglicè an ouul, or an houulet,
[p. 98] Germanicè eyn eul & eyn ùle Saxonicè.

ARISTOTELES¹.

Noctuæ, cicuniæ², & reliqua, quæ interdiu nequeunt cernere, noctu uenando cibum sibi adquirunt: uerùm non tota nocte id faciunt, sed tempore uespertino et matutino. Venantur autem mures, lacertas, uerticillos, & eiusmodi bestiolas. Noctuam³ cæteræ omnes aues circumuolant, quod mirari uocatur, aduolantesque percutiunt⁴. Qua propter aucupes ea constituta, auicularum genera multa & uaria capiunt.

DE OLORE.

Κυκνός, olor, Anglicè a suuan, Germanicè eyn swän.

ARISTOTELES⁵.

Olor. Olores palmides⁶ sunt, apud lacus & paludes uiuentes, qui nec probitate uictus, morum, pro-
[p. 99] lis, fenestutis uacant⁷. Aquilam si pugnam

¹ *Hist. An.* Bk IX. 122.

² Apparently a misprint for cicuniæ, said to mean 'horned owls.' Aristotle has *νυκτιόρακες* which he identifies in Bk VIII. 84 with *ὠτοί*.

³ *Hist. An.* Bk IX. 11.

⁴ Aristotle has *τἄλλουσι* = pluck it.

⁵ *Hist. An.* Bk IX. 78.

⁶ That is, palmipedes.

⁷ Aristotle has *εὐβίοτοι δὲ καὶ εὐήθειαι καὶ εὐτεκνοὶ καὶ εὐγηροί*.

For it impales and hangs the bigger flies and insects on the thorns and spines of shrubs, so soon as they are caught: of all birds it is tamed most easily, and when accustomed to the hand is fed on meat, and, should this happen to be somewhat dry or altogether bloodless, it requires drink. In England I have never seen it oftener than twice, although most frequently in Germany. Among our people I have found no one who knew its name, except Sir Francis Lovell, that most noble knight, endowed with equal gifts of mind and body. Now if Aristotle's description of the *Molliceps* does not appear to any one in all points to agree with this let him ascribe it to the list of the *Tyranni*, or shew us a bird, which the description fits better than this.

OF THE NOCTUA.

Γλαύξ, noctua, in English an owl or an howlet, in German eyn eul, and in Saxon eyn ðle.

ARISTOTLE.

The *Noctua*, *Cicumæ* and the rest, which cannot see by day, obtain their food by seeking it at night: and yet they do not do this all night long, only at eventide and dawn. They hunt moreover mice, lizards, and scorpions, and small beasts of the like kind. All other birds flock round the *Noctua*, or, as men say "admire," and flying at it buffet it. Wherefore this being its nature¹, fowlers catch with it many and different kinds of little birds.

OF THE OLOR.

Κύκνος, olor, in English a swan, in German eyn swän.

ARISTOTLE.

Olores are web-footed, and they live on lakes and marshes; they get food with ease, are peaceable, prolific and attain to a great age. They repulse the

¹ Or, possibly, 'the bird being set down on the ground.'

cœperit, repugnantes uincunt. Ipsi tamen nunquam, nisi prouocati, pugnam inferunt. Canere foliti sunt, & iamiam morituri. Volant etiam in pelagus longius, & iam quidam cùm in mari Africo nauigarunt, multos canentes uoce flebili & mori nonnullos conspexêre.

Si quis olorem nunquam uiderit, & ex hac Aristotelis descriptione non satis qualis sit auis didicerit, sciat auem esse albam, ansere multò maiorem, forma tamen & uictu similem, pedibus nigris, & rostro parùm turbinate, colore rutilo, in cuius summa parte, qua capiti committitur, nigerrimum tuberculum, atque id rotundum, & in rostrum sese inflectens, existit.

DE ONOCRATALO.

Onocrotalus. *Sunt hodie non parùm multi eruditione inter omnes conspicui, qui grandisonam illam lacustrèm auem, Anglis buttoram & Germanis pittourum, & rosdommam uocatam, Onocrotalum esse contendunt. Quorù* [p. 100] *ego sententiæ lubens subscriberem, (pulchrè enim cum uoce auis nominis etymologia conuenit:) nisi Plinij autoritas de onocrotalo ad hunc modum scribentis, non dissuaderet. Onocrotali, inquit, olorum similitudinem habent, nec distare uidentur omnino, nisi faucibus ipsis ineffet, alterius uteri genus. huc omnia inexplebile animal congerit, mira ut fit capacitas, mox perfectâ rapina, sensim inde in os reddita, in ueram aluum ruminantis modo refert. Gallia hos septentrionalis, proximè¹ oceano mittit. Hæc Plinius².*

¹ This should apparently be 'proxima,' as some texts have it.

² *Hist. Nat. Lib. x. cap. xlvi.*

Aquila successfully, should he begin a fight; and yet, unless provoked, never induce the fight. These birds are wont to sing even when just about to die. They also fly afar over the main, and men ere now, who have been sailing on the African sea have met with many singing mournfully and seen some of them die.

Should any one have never seen a Swan, nor learnt sufficiently what sort of bird it be from this account of Aristotle, let him know that it is a white bird, much bigger than a Goose, though like in form and feeding; with black feet, and a bill hardly spindle-shaped¹, reddish in colour; on the highest part of which, where it adjoins the head, stands forth a very black and rounded knob, sloping towards the bill.

OF THE ONOCROTALUS.

There are many to-day conspicuous among all for learning to no small degree who maintain that the loud-sounding lacustrine bird, called Buttor by the English, and Pittour or Rosdomm by the Germans, is the *Onocrotalus*. To whose opinion I would willingly subscribe, (the more so as the etymology of the bird's name agrees well with its voice,) did not the authority of Pliny writing of the *Onocrotalus* after this manner dissuade me therefrom.

The *Onocrotali*, he says, have a similitude to the Olores, and they do not seem to differ in any way, save that there is a kind of second belly in the very jaws. Herein the insatiable animal crams everything at once, so marvellous is its capacity, and presently, the plundering complete, it gradually returns all to the mouth, and thence transfers it to the real belly in the manner of a ruminant. Northern Gaul, where nearest to the ocean, sends us these. So far Pliny.

¹ This passage is not easily rendered, as it is difficult to see what Turner intended by 'turbinato.' Turbo is a conical shell, spindle and so forth; but it is hard to say how a Swan's beak could be considered either conical or spindle-shaped.

Nunc paucis auem illam uobis depingam, quã onocrotalum esse assenerant. Auis est tota corporis figura Ardeæ similis. longis cruribus, sed ardeæ breuioribus. longo collo, & mirè plumoso, & rostro nec breui nec obtuso. caput pennæ tegunt nigerrimæ. reliquum uerò corpus, fuscæ & pallidæ maculis nigris densissimè respersæ. Pedes habet longissimos, nam inter extremos ungues medij digiti pedis unius & calcis eiusdem, [p. 101] spithames longitudo intercedit. Vngues habet longissimos, nam ille, qui calcis uicem in auibus gerit, longitudine sesquiunciam superat. quare ad fricandos dentes nostrates utuntur, & argento inserunt. Medius digitus utriusque pedis, qui cæteris longior est, unguem habet portentosum, nempe dentatum & serratum, non secus atque pectuncolorum testæ serratæ sunt, ad lubricas anguillas, quas cœpit¹, retinendas, à natura proculdubio ordinatum. Cauda illi breuissima est, et stomachus capacissimus, quo ingluuiei loco utitur. Ventriculum non cæterarum auium uentriculis, sed canino similem habet, & eum grandem & capacem.

Sed ne cui falsa esse uideantur, quæ de hac aue iam scripsi, aut ex aliorum relatu potiùs quàm certa experientia didicisse uidear; dum prima huius libri folia adhuc sub prælo essent, auem mihi hanc contemplanti, secantiq;, & nū tales haberet uentriculum & stomachum, quales Plinius illi tribuit, inuestiganti: aderant uir eruditissimus, & abstrusorum naturæ arcanorum studiosissimus inuestigator Ioannes Echthius, Medicus apud Colonienses celeberrimus: Cornelius Sittardus, Medicinæ prima laurea decoratus. M. Lubertus Estius, artium liberalium professor, ambo simplicium medicamentorum pulchrè gnari, & ad miraculum usque studi- [p. 102] osi: & Conradus Embecanus uir non uulgariter doctus, et Gymnicinæ officinæ castigatior insigniter diligens, cum alijs aliquot bonarum artium studiosis, qui me nihil de hac aue hîc scripsisse testari possunt & uolunt, quod cum illis omnibus non uiderim. Ad ripas lacuum & paludium desidet, ubi rostrum in aquas in-

¹ A misprint for 'cepit.'

Now in a few words I will portray to you that bird which they assert to be the *Onocrotalus*. In general make of body it is like the Heron, with long legs, though shorter than that bird's. The neck is long and marvellously thick with plumes, the beak is neither short nor blunt. Very black feathers clothe the head, but on the body generally they are dusky and pale, and most thickly sprinkled with black spots. It has very long feet, indeed there is a span's length from the claw-tips of the middle toe of either foot to the heel of the same. It has very long claws, for that which serves in birds the purpose of a heel exceeds an inch and a half in length, on which account our countrymen use it to pick their teeth, and mount it in silver. The middle toe of either foot, which is longer than the rest, has a prodigious claw, that is to say, toothed and serrated, not unlike the shells of little scallops are, doubtless contrived by nature to retain the slippery eels, which the bird catches. The tail is very short, the gullet most capacious, and it uses it in the place of a crop. It has a belly not like that of other birds, but like that of a dog; it also is large and capacious. But lest what I have written thus far of this bird seem false to anyone, or lest I seem to have learnt the above from the reports of others rather than from sure experience: while the first pages of this book were still at press, and while I was examining the bird and was dissecting it, and taking note whether it really had a belly and a stomach such as Pliny had assigned to it, there were assisting me Joannes Echthius, a very learned man and a most zealous student of the more abstruse secrets of nature, a physician much renowned among the men of Cullen: Cornelius Sittardus decorated with the highest laurel-wreath of Medicine: Marcus Lubertus Estius, professor of the liberal arts, both excellently skilled in that of simpling, and wonderfully earnest, and as well as these Conradus Embeanus, a man well-informed in no common degree, and a remarkably careful corrector in the printing-house of Gymnicus, with certain others versed in learned arts, who can and will bear witness to the fact that I have written nothing here about this bird which I have not observed in company with all of them. It sits about the sides of lakes and marshes, where putting

serens, tantos édit bombos, ut ad miliarium Italicum facile possit audiri. Pisces & præsertim anguillas uorat audidissimè, nec ulla auis est, excepto mergo, quæ ista uoracior est. Nunc quid simile habet ista cygno? Nihil planè, quod se oculis conspiciendum offerat. Et Moyses Leuit. undecimo capite, proximè cygnum inter immundas aues onocrotalum recenset. Vnde non immeritò suspicio quibusdam orta est in Gallia, aut Iudæa auem forma olori similem alicubi posse reperiri. Quòd si nusquam talis inueniatur: probabile est, aut Plin. à mendacibus relatoribus suis esse falsum, aut ea, quæ de similitudine inter onocrotalum & cygnū tradidit, non de corporis sed uocis similitudine intellexisse. Nam & olores interdum bombos emittunt ruditiui asinino non dissimiles: sed breues, & quæ longè audiri non possunt. Verùm si hanc meam interpretationē uariæ, reconditæq; eruditionis uiri, suis suffragijs minimè approbauerint, [p. 103] hanc saltem Aristotelis ardeam stellarem esse mecum consentient. Nam præter cætera, quæ superius attigi, Aristoteles in fabula fuisse ostendens, ardeam stellarem ex seruo auem fuisse factam, opinioni meæ multum patrocinatur. Vt fugitiuorum enim seruorū post fugam depræhensorum, cutis, loris, flagris, uirgis, & scorpionibus icta, uerberum uibicibus, tota maculosa redditur: ita huius auis plumæ nigris ubique maculis, sed potissimū in tergo, distinctæ & ueluti picturatæ, serui flagris cæsi cutem proximè referūt. Quam rem fabulæ occasionem dedisse ex hoc colligo, quòd fabularum uariarum autor Aristophanes¹, de attagene aue, quod ad plumarum colores attinet, huic similima, ad hunc modum scribat:

*Si quis ex uobis erit fugitiuus atq; uotis notis,
Attagen is sanè apud nos uarius appellabitur.*

DE ORTYGOMETRA EX ARISTOTELE².

Ortygometra, id est, coturnicū matrix, auis est forma perinde ac lacustres. Cruribus ideo

¹ See p. 36.

² *Hist. An.* Bk VIII. 83, freely rendered, and interpolated.

Onocrotalum quibusdam hodie dictū, ardeam, esse stellarem apud Aristotelem.

its beak into the water it gives utterance to such a booming as may easily be heard an Italian mile away. It gorges fishes and especially eels most greedily, nor is there any bird, except the Mergus, that devours more. Now what resemblance has it to a Swan? Distinctly none that brings itself in view before our eyes. Now in the eleventh chapter of Leviticus Moses enumerates the *Onocrotalus* next to the Swan among the unclean birds. And a suspicion has arisen thence, not undeservedly, within a certain class, that somewhere within Gaul or Judæa a bird of Swan-like form may possibly exist. If such, however, nowhere can be found, it seems likely that Pliny either was deceived by lying story-tellers or he understood that which he has related of the similarity between the *Onocrotalus* and *Cygnus* to refer to a resemblance not of body, but of voice. For even Swans utter at certain times booms not unlike the braying of an ass: but short, and which cannot be heard afar. However if men of deep and varied learning by their votes shall not approve this rendering of mine, at least they will agree with me that the said bird is Aristotle's *Ardea Stellaris*. For to omit the rest, which I have touched upon above, that author certainly gives countenance to my opinion when he shews a tale to have existed that the *Ardea Stellaris* from a slave was turned into a bird. For as the skin of an absconding slave, caught subsequent to flight, stricken with thongs, whips, rods and knotted ropes, becomes all mottled with the wales of stripes, so too the feathers of this bird are marked, and painted as it were, with mottlings of black in every part, though chiefly on the back, and thus may well recall to us the skin of slaves cut up with whips. And that this thing gave rise to the aforesaid tale, I gather from the fact that Aristophanes, author of various plays, writes of the *Attagen*, a bird very like ours so far as colour of the feathers goes, to this effect:—

“If any of you be a runaway, and branded with the marks, with us assuredly he shall be called the spotted *Attagen*.”

OF THE ORTYGOMETRA FROM ARISTOTLE.

The *Ortygometra*, that is, dam of the *Coturnices*, in form is much like marsh-birds. Certain birds are

longis aues quædam innituntur, quòd earum uita fit palustris.

[p. 104] *Ortygometram aliqui eandem esse auem cum crece et cychramo uolunt. Sed Aristoteles, peculiare caput creci donauit, et octauo libro historiæ animalium, cychramum a matrice, quam ortygometram uocat, his uerbis distinguit. Coturnices (inquit) cùm hæc adeunt loca, sine ducibus pergunt: at cùm hinc abeunt, ducibus lingulaca, oto, & matrice, proficiscuntur, atque etiam cychramo, à quo etiam reuocātur noctu, cuius uocē cùm fenerint aucupes, intelligunt parari discessum. Hæc ille.*

Fieri igitur non potest, ut matrix & cychramus eadem auis sit. Aliqui ortygometram esse uolunt Germanorum scricam, & Anglorum daker hennam, quorum ego sententiæ accederem, si crecem eandem cum ista, euincerent.

DE OSSIFRAGA.

ARISTOTELES¹.

Offifragæ magnitudo maior est quàm aquilæ, color ex cinere² albicans. Probè³ & fœtificat, & [p. 105] uiuit, cœnæ gerula & benigna est. Nutricat enim bene, & fuos pullos & aquilæ. Cùm enim illa fuos nido eiecerit, hæc recipit eos, ac educat.

PLINIUS⁴.

Quidam adiiciunt genus aquilæ, quam barbatam uocāt Thufci offifragam.

¹ *Hist. An.* Bk VIII. 39.

² Apparently a misprint for 'cinereo.'

³ *Hist. An.* Bk IX. 123.

⁴ *Hist. Nat.* Lib. x. cap. iii.

perched upon long legs because their life is passed in marshes.

Some will have Ortygometra to be the same as *Crex* and *Cychramus*. But Aristotle has attributed a peculiar sort of head to *Crex*, and in the eighth book of his *History of Animals* distinguishes his *Cychramus* from *Matrix*, which he calls *Ortygometra*, in the following words:—

Coturnices (he says) when they come to these places travel without guides: but when they go away set out with the *Lingulaca*, the *Otus*, and the *Matrix* as their guides, and also with the *Cychramus*, by which they are moreover summoned back at night. And when the fowlers have heard its cry, they know the birds' departure is at hand.

Thus he writes.

Therefore it is impossible that the *Matrix* and the *Cychramus* should be the same. Others will have the *Ortygometra* to be the *Scrica* of the Germans and the *Daker Hen* of the English, and I should accede to their opinion, if they could but prove the *Crex* to be the same as this.

OF THE OSSIFRAGA.

ARISTOTLE

In size the *Ossifrage* is greater than the *Aquila*, its colour whitish grey¹. Both in breeding it is comely and in way of life, it brings food home and is kindly. For it rears its own young with care, besides those of the *Aquila*. For when the latter has cast its progeny out of the nest, the former takes them to itself, and brings them up.

PLINY.

Some there are who add that kind of *Aquila*, which the Tuscans call a bearded *Ossifrage*².

¹ See p. 36.

² Possibly Pliny means the *Lämmergeier* (*Gypaëtus barbatus*).

DE OTO.

ὠτός, otus, *Anglicè a horn owl, Germanicè eyn rauſeul / oder eyn ſchleier eul.*

ARISTOTELES¹.

Otus noctuæ ſimilis eſt, pinnulis circiter aures eminentibus, præditus, unde nomen accepit, quaſi auritum dixeris. Nonnulli ululam eū appellant, alij aſionem². Blatero hic eſt & hallucinator, & planipes: faltantes enim imitatur. Capitur intentus in altero aucupes³, altero circumeunte.

[p. 106]

DE OTIDE EX PLINIO⁴.

Tetraonibus proximæ ſunt, quas Hiſpania aues tardas appellat, Græcia otidas, damnatas in cibis. Emiſſa enim offibus medulla, odoris tædium extemplò ſequitur.

DE PARIS.

ἀγριθαλός, parus, *Anglicè a tit mouſe, German. eyn meÿſe.*

ARISTOTELES⁵.

Parorum tria ſunt genera: fringillago, quæ maior eſt, quippe quæ fringillam æquet. Alter monticola cognomine eſt: quoniam in montibus degat, cui cauda longior. Tertius magnitudine fui exigui corporis diſcrepat, quanquam cætera ſimilis eſt. parus⁶ plura oua parit.

Fringillago. *Primum parū, Angli uocant the great titmouſe or the great oxei, Germani eyn fölmeyſe.*

Parus medius. *Parum ſecundum, Angli the leſs titmouſe nominant. Germanici eyn meelmeyſe.*

¹ *Hist. An.* Bk VIII. 84. very freely rendered.

² Aristotle has 'νυκτικώρακα,' instead of 'ululam' and 'aſionem.'

³ A misprint for 'aucupe.'

⁴ *Hist. Nat.* Lib. x. cap. xxii.

⁵ *Hist. An.* Bk VIII. 40.

⁶ *Hist. An.* Bk IX. 88.

OF THE OTUS.

ὠτός, otus, in English a horn owl, in German *eyn ranseul* or *eyn schleier eul*.

ARISTOTLE.

The Otus is like a *Noctua*, furnished with little tufts sticking out near the ears, whence it has got its name, as though one should say "eared." Some call it *Ulula*, and others *Asio*. It is a babbler and a mischievous rogue, and is a mimic too, for when men dance it imitates their ways. It is caught while intent upon one of two bird-catchers, the other circumventing it.

OF THE OTIS FROM PLINY.

Next to the *Tetraones* come those birds, which Spain calls "*Aves tardæ*" and Greece "*Otides*," condemned as food for man. For when the marrow issues from the bones, disgust at the smell follows there and then.

OF THE PARI.

αἰγίθαλος, parus, in English a titmouse, in German *eyn meyse*.

ARISTOTLE.

There are three kinds of *Pari*: *Fringillago* bigger than the rest, for it is equal to a *Fringilla*. The next *Monticola* by name, for it inhabits mountains, has a longer tail. The third kind differs in the size of its small body, though not otherwise unlike the rest. *Parus* lays many eggs,

The first *Parus* the English call the Great Titmouse or Great Oxeye, the Germans *eyn kölmeyse*.

The second *Parus* the English name the Less Titmouse, the Germans *eyn meelmeyse*.

[p. 107]
Parus mi-
nimus.

Parus tertium, Angli nonnam à similitudine quam cum uelata monacha habet, nominant.

Nidulantur pari in cauis arboribus, uescuntur non solum uermibus, sed & canabino semine, & nucibus, quas rostris suis acutioribus solent perforare, & nucleos eruere. Sæuo duo priora genera multum delectantur. Parus maximus ineunte statim uere cantiunculam quandam breuem, nec admodum iucundam exercet, aliàs mutus, huic pectus luteum est, interkursante linea nigra maiuscula. Cæterorum corpora albo, nigro, pallido, & cyaneo coloribus distinguuntur.

DE PARDALO.

Pardalus, Angl. (ut creditur) a pluuer, Germa. eyn puluer.

ARISTOTELES¹.

Pardalus etiam auicula quædam perhibetur, quæ magna ex parte gregatim uolat, nec singularè hanc uideris, colore tota cinereo est, magnitudine proxima mollicipiti² est: fed pennis & pedibus bonis, uocem frequentem nec grauem emittit.

[p. 108] *Si auis illa pardalus sit quam esse suspicor, celerimè currit, & sibilum, quem pastores & aurigarum pueri labijs porrectis edunt, uoce imitatur. Pennas habet ad cinereum colorem proximè uergentes, quarum singulæ singulis flauis maculis sunt respersæ, & ea auicula, quam mollicipitè esse conijcio, multò maior est. Fieri potest, ut eius auis plures sint species.*

DE PASSERIBVS.

στρούθος, passer, Angli. a sparrouu, German. eyn müsche oder eyn ipäh. Quidam eyn lüningk, Saxones eyn sperlingk uocant.

Passer, authore Aristotele³, puluerat & lauat, et auis est omnium salacissima. Et quanquam Aristoteles unum tantum passerum genus fecerit, tria tamè genera esse constat, quæ nunquam nouit, & quæ recentiores

¹ *Hist. An.* Bk IX. 99.

² Aristotle has *ἐκείνους*, referring to the *χλωρίων* and the *μαλακοκρανείας*.

³ *Hist. An.* Bk IX. 260, Bk V. 8.

The third Parus the English name the Nun from the resemblance that it bears to a veiled sister.

The Pari nest in hollow trees, they feed not only on worms, but on hempseed and nuts, which they are wont to bore with their sharp-pointed beaks, and thence extract the kernels. The two former kinds are very fond of suet. The Greatest Parus, when the spring arrives, at once utters a sort of little song, short and not very pleasing, it is dumb at other times; its breast is yellow with a somewhat big black line running along the middle. Of the other kinds the bodies are diversified by white, black, grey, and blue.

OF THE PARDALUS.

Pardalus, in English (as is believed) a pluver, in German eyn pulver.

ARISTOTLE.

The Pardalus again is held to be a certain little bird, which for the most part flies about in flocks, and cannot be seen solitary; it is wholly grey in colour, and in size comes nearest to the Mollicept: but it has strong wings and feet, and utters a frequent but not deep-toned cry.

If that bird be the Pardalus which I suspect, it runs very swiftly, and by its cry mimics the whistle which shepherds and post-boys make with pouting lips. It has the feathers almost ash-colour, each sprinkled with one yellow spot, and is much bigger than the little bird which I suppose to be the Mollicept. It well may be that there are several kinds of this bird.

OF THE PASSERES.

στρουθός, passer, in English a sparrow, in German eyn müsche or eyn späztz. Some call it eyn lüningk, the Saxons eyn sperlingk.

The Passer, Aristotle says, both dusts itself and washes, and is of all birds most wanton. And though Aristotle has made only one kind of Passeres, yet it is clear that there are three kinds, which he never knew; but which the later

Passer torquatus.

Græci inuenerunt. Primum horum trium est passer torquatus, à communi passere, nō solū torque albo, sed & uoce, & modo nidificandi differēs. Hoc genus in Germania frequens est, sed apud Anglos rarum. Secundus passer magnus

Passer magnus. Huic mollicipitis apud

Auctuario dicitur, & in summis arborum ramis plerumque solet sedere. hunc uarijs de causis Anglorum buntingam, & Germanorum Gerst-

[p. 109] Aristotelem descriptio magna ex parte conuenit. Passer troglodites.

hammeram esse suspicor. Tertius passer Aristoteli incognitus, est passer troglodites, apud Paulum Aeginetam, & Aetium celeberrimos medicos, multū celebratus. Qualis autem illa auis sit, ex Paulo & Aetio, quorum descriptiones mox subijciam, omnibus facili patebit.

PAULUS AEGINETA DE PASSERE
TROGLODITE.

His accedit laudatissimum remedium troglodites. est autem passerculus omnium auium minima, ea fola excepta, quæ regulus appellatur, hoc enim folo paulò maior est, eiq; similis: colore inter cinerū & uiride, tenui rostro, in muris maximè & in sepibus degens.

AETIUS.

Troglodites est passerculus minimus, iuxta sepes & muros uictum quæritans. Estq; hoc animalculum omnium auicularum minimum, ex-
[p. 110] cepta ea, quæ regulus appellatur, similis autem regulo in multis, præterquam quòd in fronte auricolores pennas non habet. Est autē troglodites passer regulo paulò maior & nigrior, caudamq; semper subrectam, & albo colore retrò interpunctam habet. Magis item garrulus

Greeks discovered. First of these three is *Passer torquatus*, differing from the common *Passer* not alone in its white collar, but also its note and mode of nesting. This kind is plentiful in Germany, but rare among the English. The second *Passer* is called in the Supplement¹ the Great, and for the most part it is wont to sit on the top boughs of trees. For several reasons I consider this to be the Bunting of the English and the Gersthammer of Germans. The third *Passer*, unknown to Aristotle, is the *Passer troglodytes*, fully recognised by Paulus Ægineta and Aëtius, doctors of great renown. And so what sort of bird it is will easily be seen by everyone from Paulus and Aëtius, and their descriptions I will forthwith add.

PAULUS ÆGINETA² OF THE PASSER TROGLODYTES.

There is a remedy most highly prized besides these, namely *Troglodytes*: this is nothing but a little Sparrow, the least of all birds, with the exception only of that kind which is called *Regulus*. It is a little bigger than that bird alone, and similar to it: in colour between grey and green, and with a slender bill. It lives chiefly in walls and hedges.

AËTIUS³.

The *Troglodytes* is the very least of Sparrows, seeking for its food near hedges and near walls. This little animal moreover is the smallest of all little birds, except that which is called *Regulus*, while it is like the *Regulus* in many ways, save that it has not golden-coloured feathers on the forehead. The *Passer troglodytes* is a little larger and blacker than the *Regulus*; it always has its tail cocked up, which is spotted behind with white. Likewise it is more noisy than the

¹ It seems impossible to ascertain what this Auctuarium was.

² A medical writer of Ægina, whose chief work was *De Re Medica Libri Septem*.

³ A Greek medical writer of Amida in Mesopotamia who wrote Βιβλία Ἰατρικὰ Ἑκκαίδεκα.

quàm regulus est, & fanè iuxta fumum alæ lineamentum cinerij amplius coloris. Breues item facit uolatus, naturalem autem uim omnino admiratione dignam habet.

Nihil est in hac descriptione, quod non ad amussim auiculæ conueniat, quam Angli passerem sepiarium, Colonienses aucupes koelmuffhum nominant. Sed quoniam tam in Germania quàm in Anglia uarijs nominibus appellatur, & non omnes eum ex uno nomine agnoscunt, omnia eius, quæ noui nomina, ut omnibus innotescat, subiiciam.

Vocatur apud Anglos an hedge sparrow, hoc est passer sepiarius, & a dike smouler, hoc est, in sepibus [p. 111] delitescens. Vulgus Coloniëse hunc passerem eyn gras-musch appellat. uerū peritiores quiq; aucupes eyn koelmusch, hoc est, passerem in foraminibus & cauernis degentem, nuncupant. Hic Germanos monitos uolo, quū duæ sint aues, grasmuschi, sua lingua uocatæ, illæ solæ esse trogloditen, quæ per totum annum regulo similis cernitur, & non illam, quæ circa fauces plumosa¹ ineunte statim hyeme discedit. Nidum huius passeris semel humi factum inter urticas uidi, & pullos antequam uolare possunt, relicto nido, inter herbas fruticesq; reptitantes, sæpiùs obseruau: uermibus pascitur, & paulò ante uesperum solet impensius strepere, & omnium ferè auium postrema dormitum petit.

DE PAVONE.

Ταών, pavo, Anglicè a pecock, Germanicè eyn pffaw. Saxonice eyn pagelün.

PLINIUS².

Pavo gemmantes laudatus expandit colores, aduerso maximè sole, quia sic fulgentius radiant, simul umbræ quosdam repercussus cæteris, quæ [p. 112] in opaco clariùs micāt, conchata quærit cauda, omnesq; in acerrimum contrahit pënarum, quos

¹ This is probably a misprint for some other word.

² *Hist. Nat.* Lib. x. cap. xx.

Regulus, and certainly towards the upper border of the wing the colour is more nearly grey. And though it takes short flights, its natural energy is worthy of all admiration.

In this description there is nothing that does not agree exactly with the little bird, which Englishmen name *Passer sepiarius*, the bird-catchers of Cullen the *koelmusch*. But inasmuch as both in Germany and England it is called by various names, and all men do not recognise it by the same, I will subjoin those of its appellations which I know, that so it may be known to all.

By the English it is called a Hedge-Sparrow, which is the same as *Passer sepiarius*, and also a Dike Smouler, one, that is, hiding itself in hedges. The common people of Cullen call it *eyn grassmusch*, but those who know better and fowlers name it *eyn koelmusch*, that is, a Sparrow dwelling within holes and caverns. Now here I wish the Germans to be warned, that since there are two birds called *grassmusch* in their tongue, the *Troglodytes* is that kind alone which throughout the year is noticed to be like the *Regulus* and not that which is feathered round the jaws, and goes away so soon as winter comes. Of this *Passer* I once met with a nest built on the ground among nettles and I have often seen young having left the nest before that they could fly, creeping among the grass and shrubs. It feeds on worms, and it is wont a little before evening to cry out with not a little vehemence; it goes to roost almost the last of all the birds.

OF THE PAVO.

Tαών, pavo, in English a pecock, in German *eyn pffaw*, in Saxon *eyn pagelün*.

PLINY.

The Peacock is admired for setting forth his jewelled colours, generally counter to the sun, since thus they shine the brighter, while with concave tail he gains certain reflexions of the shade for other feathers which shine brighter in the dark, and at the same

ſpectare¹ gaudet oculos. Idem cauda annuis uicibus amiſſa cum folijs arborum, donec renafcatur iterum cum flore: pudibundus ac mœrens quærit latebram. Viuit annis uiginti quinque. Colores incipit fundere in trimatu. Ab autoribus traditur non tantùm glorioſum animal, ſed maleuolum, ſicut anſer uerecundum. Pauones in capitibus ſuis ueluti crinitâ habent arbuſculâ.

DE PERDICE.

Πέρδιξ, *perdix*, *Anglicè a pertridge*, *Germanicè* *eyn velt hûn/ ader eyh raphûn.*

ARISTOTELES².

Perdix auis eſt pulueratrix, & non altiuola, & eadem non in nido ſed in condenſo frutice [p. 113] aut ſegete prolem ſuam munit. Aues enim grauiores nidos ſibi non faciunt, ut coturnices & perdices, & reliquæ generis eiufdem. Quibus enim uolandi facultas deeſt, ijs nidus non prodeſt: ſed facta in aprico³, area, (alibi enim nuſquam pariunt) atque materia ut uepribus⁴ quibuſdam congeſtis, quoad accipitrum & aquilarum iniuriam deuitare poſſint. Oua edunt, & incubant, mox cùm excluſerint, protinus pullos educunt. propterea quòd nequeunt ſuo uolatu ijs cibum adminiſtrare. Refouent pullos ſuos ſub ſe, ipſæ ducendo more gallinarum, & coturnices & perdices. Nec eodem loco pariūt & incubât, ne quis locum percipiat, longioris temporis mora.

¹ A misprint for 'ſpectari.'

² *Hist. An.* Bk IX. 260, 59—61.

³ There is a reading *λείφ* beſides *ήλίφ*.

⁴ Aristotle has *ἀκανθάν τινα καὶ ὕλην*, ſo no doubt 'ut' is a misprint for 'et.' Gaza has 'ut.'

time draws into a cluster all the eyes upon his feathers, which he is well pleased should be admired. The same bird, having lost his tail, when the trees shed their leaves by annual change, ashamed and sorrowing seeks a hiding place, until it once more grows together with the flowers. He lives for five and twenty years, and in the third begins to shew his colours. He is reported by authorities to be an animal not only proud but also ill-disposed, just as the Goose is bashful. Peacocks have on their heads as it were a bush of hair.

OF THE PERDIX.

Πέρδιξ, perdix, in English a partridge, in German eyn velt hön, or eyn raphön.

ARISTOTLE.

The *Perdix* is a bird that dusts itself, and flies not high¹; moreover it finds safety for its young not in a nest, but in thick shrubs and corn. For birds of heavy body make no nest, such as *Coturnices* and *Perdices*, and others of like sort. For to those kinds in which facility of flight is wanting, there is small advantage in a nest; but in some sunny place (for they breed nowhere else) a space is cleared and sticks and a few briars are collected there sufficient for them to avoid attacks of *Accipitres* and *Aquilæ*. They lay their eggs and sit; so soon as these are hatched, they lead their young away forthwith because they cannot supply food to them by means of flight. Both *Coturnices* and *Perdices* cherish their chicks beneath them, themselves leading them in the same way as hens lead theirs. They do not lay and incubate in the same place (year after year), lest any one should find it through the length of time for which they sit. Should

¹ See p. 35.

Cùm ad nidum quis uenando accefferit, pro-
 [p. 114] uoluit se perdix ante pedes uenantis, quasi iam
 capi possit¹, atque ita ad se capiendam hominem
 allicit, eoque dum pulli effugiant, tum ipsa
 uolat, & reuocat prolem. parit oua non pauci-
 ora quàm decem.

*Est & alia auis, quæ perdix rustica dicitur, Anglis
 rala dicta, cuius his uerbis Martialis² meminit:*

*Rustica sum perdix, quid refert si sapor idem?
 Charior est perdix, si sapit illa minus.*

DE PHASIANO.

*Phasianus, Anglicè a phefan, Germanicè eyn fasant/
 ober eyn fasian.*

PLINIUS⁴.

Phasiani geminas aures ex pluma submit-
 tunt, subriguntq̄. quæ ueluti cornicula appa-
 rent.

ARISTOTELES⁴.

Phasianorum oua punctis distincta sunt ut
 meleagridum, puluerant ut gallinæ & perdices.
 [p. 115] Phasiani à pediculis infestantur, & nisi inter-
 dum puluerent, eisdem interimuntur.

DE PHŒNICE.

PLINIUS⁶.

Aethiopes atque Indi discolors maximè &
 inenarrabiles ferunt aues, & ante omnes nobilem
 Arabiæ phœnicem: haud scio an fabulosè, unum
 in toto orbe, nec uifum magnoperè. Aquilæ
 narratur magnitudine, auri fulgore circa colla,
 cætera purpureus, cœruleam roseis caudam pen-

¹ Aristotle has *ὡς ἐπιληπτος οὖσα*, which means 'as if disabled.'

² *Epigr.* Lib. XIII. lxxvi.

³ *Hist. Nat.* Lib. x. cap. xlvi.

⁴ *Hist. An.* Bk VI. 5, Bk IX. 260, Bk v. 140.

⁶ *Hist. Nat.* Lib. x. cap. ii.

any man when hunting come up to the nest, the *Perdix* casts herself before the hunter's feet, as if she could be caught at once, and thus attracts the man to take her, till the chicks escape, whereon she flies off and recalls her brood. She lays no fewer than ten eggs.

And there is yet another bird, which is called *Perdix rustica*: it is called "rale" by Englishmen, and of it Martial makes mention in the following lines:—

I am a country partridge, but what matters it so that the flavour be the same? The partridge is the dearer, if it tastes less well¹.

OF THE PHASIANUS.

Phasianus, in English a pheasant, in German *eyn fasant* or *eyn fasian*.

PLINY.

The *Phasiani* lower and erect two ears of feathers, which look like small horns.

ARISTOTLE.

Of *Phasiani* the eggs are marked with spots, like those of *Meleagrides*; they dust themselves, just as *Gallinæ* and *Perdices* do. *Phasiani* are a prey to lice, and if they do not sometimes dust themselves, are killed by them.

OF THE PHOENIX.

PLINY.

The *Æthiopians* and *Indians* tell of birds of very varied colouring and indescribable, and of the *Phoenix* of *Arabia*, most noteworthy of all: I know not whether falsely, that there is but one in the whole world, and this not often seen. It is declared to be of the size of an *Aquila*, with golden sheen around the neck, but purple otherwise, varied with roseate feathers on

¹ The text here given is probably corrupt, which makes the rendering uncertain.

nis distinguuntibus, cristis faciem caputq; plumo apice honestante. Primus atque diligentissimus togatorum de eo prodidit Manilius, fenator ille maximus, nobilis, doctore nullo, autor est, neminem extitisse, qui uiderit uescē-
 [p. 116] tem. Sacrum in Arabia soli esse, uiuere annis 660. fenescētem casia thurisq; furculis construere nidum, replere odoribus, & superemori. Ex ossibus deinde ac medullis nasci primò ceu uermiculum, inde fieri pullum.

DE PICA.

Κίττα, *pica*, *Anglicè a py, or a piot, Germanicè eyn elster/ oder eyn ahesl.*

ARISTOTELES¹.

Pica uoces plurimas commutat, singulis enim ferè diebus diuersam emittit uocem. Parit oua circiter nouem numero. Nidum in arboribus facit ex pilis & lana, glandes cùm deficiunt, colligit, & in repositoio abditas, referuat.

PLINIUS².

Minor nobilitas, quia non ex longinquo
 [p. 117] uenit, sed expressior loquacitas certo generi picarum est, quàm psitacis est. Nec discunt tantum, sed diligunt meditantēsq; intrà semet, cura atq; cogitatione, intentionem non occultant. Constat emori uictas difficultate uerbi, ac nisi subinde eadem audiant, memoria falli, quærentes mirum in modum hilarari, si interim audierint id uerbum. Nec uulgaris ijs forma, quamuis non

¹ *Hist. An.* Bk IX. 81.

² *Hist. Nat.* Lib. x. cap. xlii.

a tail of blue, tufts beautifying the face, a feathery crown the head. First of our citizens and with great care Manilius wrote of it, that noted senator, of such high birth; of his own knowledge he asserts that nobody exists who ever saw it eat. He says that in Arabia it is considered sacred to the sun, and lives for six hundred and sixty years. When it grows old it makes itself a nest with cassia and twigs of frankincense, this nest it stores with scents and on the top it dies. Then from its bones and marrow is produced what seems a little worm, but afterwards becomes a chick.

OF THE PICA.

Κίττα, pica, in English a py or a piot, in German eyn elster or eyn atzel.

ARISTOTLE.

The Pica oftentimes changes its notes, for almost every day it utters different cries. It lays about nine eggs. It makes a nest in trees, of hair and wool, and when acorns grow scarce, it gathers them and keeps them hidden in store.

PLINY.

Less fame, because it does not come from distant lands, though more distinct loquacity characterizes a certain sort of Picae than the Psittaci. Not only do they learn, but they delight to talk, and meditating carefully and thoughtfully within themselves hide not their earnestness. They are known to have died when overcome by difficulty in a word, and, should they not hear the same things constantly, to have failed in their memory, and while recalling them to be cheered up in wondrous wise, if meanwhile they have heard that word. Nor¹ is their beauty of an

¹ Or perhaps, 'their form is not commonplace, though not showy to the eye.'

ſpectanda, fatis illis decoris in ſpecie ſermonis humani eſt. Verùm addiſcere alias negant poſſe, quàm quæ ex genere earum ſunt, quæ glande uelcantur, & inter eas faciliùs, quibus quini ſunt digiti in pedibus: ac ne eas quidem ipſas, niſi primis duobus uitę annis. Nuper et adhuc tamen rara ab Appennino ad urbem [p. 118] uerſus cerni cępere picarum genera, quæ longa inſignes cauda uarię appellantur, proprium his calueſcere omnibus annis cùm feratur rapa.

Plinius duo picarum genera facere uidetur: poſterius hoc genus Plinij, picarum genus eſſe uidetur, quod paſſim in Germania & Anglia longa cauda præditum, oua & pullos gallinarum populatur. Aliud genus picę, tam longa cauda ornatum, quàm hoc eſt, non noui. noſtra quoque pica uulgaris calueſcere quotannis ſolet. Alterum autem picę genus diu ſanè dubitauit quod nam eſſet, & adhuc non ſatis teneo. Cùm eſſem in Italia ad ripam Padi, ambulantiſ mihi, & itineris mei comitiſ, auis quędam picę ſimilis, lingua Britannica iaia, & Germanica mercolphus appellata, conſpiciendam ſeſe commodùm obtulit, cuius nomen Italicum quum à monacho quodam, qui tum fortè aderat, percontarer, picam granatam dici reſpondit. Qua re cùm apud Italicum etiam uulguſ non ſolum priſtinę linguę Romanę, ſed & rerum ſcientię, non obſcura ueſtigia adhuc ſupereſſe depręhenderem, ſuborta eſt mihi hinc ſuſpicio, auem hanc è generibus picarum eſſe, & quòd [p. 119] ſcirem eandem, altera uulgari pica, multò expreſſius humanas uoces imitari, ita ſuſpicionem meam auxit, ut parùm abſit, quin credam hanc eſſe alterius generis picam, nam & glandibus uelcitur magis omnibus alijs auibus.

Iaia Anglorum, mercolphus Germanorū.

Hanc meã opinionẽ Perottus¹ cõfirmat, quem ſi uacat lege.

¹ Probably Reader in Greek to Edward VI. (cf. *Dict. National Biogr.* XLV. p. 21).

ordinary sort, though not considerable to the eye; for them it is enough honour to have a kind of human speech. However people deny that others are able to learn, save those belonging to the group which lives on acorns—and of these again those with the greatest ease which have five toes upon each of their feet: nor even they except during the first two years of life. Of late, however, and as yet infrequently, towards the city from the Appennines there have begun to be observed some sorts of *Picæ* which being remarkable for the length of their tails have been called “*variæ*.” They have this special mark that they grow bald in every year when rape is sown.

Of *Picæ* Pliny seems to make two kinds: this latter kind of his would seem to be that Pie which here and there in Germany and England plunders both the eggs and chicks of fowls, possessing a long tail. I do not know another kind of Pie provided with a tail so long as this. And furthermore our common Pie is wont to grow bald every year. Now what the second sort of Pie might be I doubted very long, nor have I yet grasped it sufficiently. But when I was in Italy upon the banks of the Po, and while my fellow-travellers and I were walking out, a certain bird like a Pie, in English called a Jay, in German *mercolphus*, offered itself conveniently for observation. Thereupon I asked a certain monk, who then by chance was present, its Italian name, and he replied to me that it was called the Seed Pie¹. When therefore I perceived that with the common people of Italy not only patent traces of the old Roman tongue still actually existed, but also of things scientific, a suspicion rose within me that this bird was of the group of Pies; moreover, since I knew that the same imitated human tones much more correctly than the other Pie, which is the commoner, so much was I confirmed in my suspicion that I can scarcely refuse to credit that this Pie was Pliny’s second kind, particularly as it lives on acorns more than any other bird.

¹ Ghiandaja is the modern Italian name, derived from ‘glans’=an acorn.

DE PICO MARTIO.

a rayn
byrde.

Δρυοκολάπτης, *picus martius*, *pīpo*, *iyphx*, *torquella*,
turbo, *Anglicè & Germanicè a specht*, εϕη *specht*.

ARISTOTELES¹.

Galgulum
interpretatur
Gaza.

Id est, uiuit
ad ligna.

[p. 120]

Alia culicibus² gaudent, nec alio magis quàm uenatu culicum uiuūt, ut pipo tum maior tum minor, utrumque picum martium uocant. Similes inter se sunt, uocemq; similem emittunt, sed maiorem; quæ maior est. Item κόλιος³, cui magnitudo quanta turturi ferè est, color luteus, lignipeta hic admodum est, magnaq; ex parte more picorum νέμεται ἐπὶ τῶν ξύλων, quod est, ut interpretatur Gaza, ex macerie uiuit: uocem emittit magnam, incola maximè Peloponesi hic est.

Obsæua ubi Aristoteles duo tantùm picorum genera facit, ibidem illum galgulum describere, & ubi tria facit, eundem omittere.

ARISTOTELES⁴ LIB. 9. CAP. 9. DE HISTORIA ANIMALIUM.

Alauda gallinago, & coturnix nunquam in arbore consistunt, sed humi. Contrà atq; picus martius, qui nunquam humi consistere patitur. Tundit hic quercus, uermium & culicū causa, quo exeant: recipit enim egressos lingua sua, quam maiusculam, & latiusculam habet. Scãdit per arborem omnibus modis: nam uel refupinus, more stellionū, ingreditur. Vngues etiam habet commōdiores quàm monedula⁵, ad tuti-
[p. 121] orem arborum reptationem, his enim adfixis ascendit. Sunt pici Martij cognomine, tria genera: unum minus quàm merula, cui rubidæ

¹ *Hist. An.* Bk VIII. 43—44.

² Gaza translated Aristotle's σκνίψ by culex (=gnat). Most probably it may be used for various small winged creatures.

³ There is another reading, κελεός,

⁴ *Hist. An.* Bk IX. 66—69.

⁵ κολοιός may be a misreading here and below for κελεός, but this seems doubtful.

OF THE PICUS MARTIUS.

Δρυοκολάπτης, picus martius, pipo, iynx, torquella, turbo, in English and in German a specht, eyn specht.

ARISTOTLE.

Some birds delight in grubs, and as a rule live on no other prey, as do the great and little Pipo, both of which people call Picus Martius. Resembling one another they utter like cries, although the greater has the louder cry. Again there is the κολιός, the size of which is, nearly as may be, that of the Turtur, and its colour yellowish. It pecks wood freely, and, as the Pici do, lives for the most part on the trunks, that is, lives on the wood¹, as Gaza renders it: it utters a loud cry, and is especially a resident in the Peloponnese.

Note that, when Aristotle only makes two sorts of Pici, in that passage he describes the Galgulus, when he makes three, he does not mention it.

ARISTOTLE BOOK 9, CHAP. 9, OF THE HISTORY OF ANIMALS.

Alauda, Gallinago, and Coturnix never alight on trees, but always on the ground. It is however otherwise with Picus Martius, which never can endure sitting upon the ground. It hammers oaks for worms and grubs, that they may shew themselves, and when they issue forth it takes them on its tongue, which it has somewhat long and broad. It climbs about a tree in every way, for it even walks upside down, after the way of Lizards. It has claws better formed for creeping safely on the trees than even the Monedula, and climbs with them stuck in. There are three sorts of birds that have the special name of Picus Martius, one less than a Merula, which has some

¹ Cf. p. 88.

aliquid plumæ ineft. Alterũ maius quàm me-
rula: tertium non multò minus quàm gallina.
Nidulatur in arboribus tum alijs cum oleis.
Pascitur formicis & coffis. Cùm coffos uenatur,
tam uehementer excauare, ut fternat arbores
dicitur. Iam uerò mitefcens, quidam amygdalũ,
quod rimæ inferuiffet ligni, ut fixũ conftanter
içtum reciperet, tertio içtu pertudit, & nucleum
edit. Paucis¹ quibusdam utrinque bini ungues
ut auiculæ, quam Iyngem uocant. Hæc paulò
maior quàm fringilla eft, corpore uario. Habet
fibi propriam digitorum, quã modò dixi, difpo-
[p. 122] sitionem, & linguam ferpentibus fimilem: quippe
quam in longitudinem, menfura quatuor digi-
torum porrigat, rurfumq; contrahat intra ro-
ftrum, collum etiam porrigit in auerfum reliquo
quiefcente corpore, modo ferpentium, unde tor-
quilla uulgò appellata eft: quanquam turbo ab
antiquis. Ungues ei grandes, & fimiles, ut
monedulis exeunt, uoce autem ftridet.

*Primum pici genus Angli Spechtam, & uuod-
Spechtam, Germani elfterSpechtam nominant. Secundum
genus Angli huholam, hoc eft, foraminum dolatorem,
Germani grunfprechtã nuncupant. Tertiũ genus Anglia
nõ nouit, Germani aut craspechtam .i. cornicinum
picum appellãt, quòd cornicem plumarũ colore & magni-
tudine etiam penè æquet.*

Picus mi-
nimus.
Medius.
Maximus.

*Plinius præter hæc tria Aristotelis genera, quartum
pici genus facere uidetur, nam lib. 10. cap. 33 fcribit.
picum aliquem fuspendere nidum in furculo primis
in ramis cyathi modo, ut nulla quadrupes poffit ac-
cedere.*

*Præter uireonem folum, in Europa nullam aliã
[p. 123] auem ita nidulari noui. Quare nullam aliam, quàm
hanc, quæ pici quartum genus effe poffit, inuenio.*

¹ *Hist. An.* Bk II. 46—47.

feathers red. The second bigger than a *Merula*, the third not much less than a barn-door hen. It breeds in various trees and olives in particular. It feeds on ants and grubs, and when hunting for grubs is said to excavate so vigorously as to fell trees. Indeed one that was tamed broke at the third attempt an almond which it had inserted in a chink of the wood, that being fixed it might more surely receive the stroke, and ate the kernel out. In some few birds there are two claws in front and two behind, as in the little bird which men call *Iynx*. This kind is not much larger than a *Fringilla*, and has the body mottled. It has moreover the peculiar arrangement of the toes, of which I have just spoken, and a tongue like that of serpents, for it shoots it out up to a distance of four fingers' length, and draws it back again within the beak; it twists its neck moreover backwards, with its body still, just as the serpents do, whence it is commonly called *Torquilla*, although it is the *Turbo* of old writers. It has claws of great size, which are like those that grow on the *Monedula*, it has a strident cry.

Of *Picus* the first kind the English call the *Specht* and *Wodspecht*, which the Germans name the *elsterspecht*. The second kind Englishmen term *Hewhole*, that is, hewer of holes, the Germans *grunspecht*. The third kind England knows not, but in Germany they call it *craspecht* or the *Crow-Picus*, for it is very nearly like a *Crow* in colour of the plumage and also in size. Besides these three sorts of *Aristotle* *Pliny* seems to make a fourth, for in Book 10 and chapter 33 he tells us that a certain *Picus* hangs its nest, in fashion like a cup, upon a twig among the outer branches of a tree, so that no quadruped is able to come nigh. Except the *Vireo* alone, I know no other bird in Europe which places its nest in such a way. Wherefore I find no other than the above which the fourth kind of *Picus* possibly can be.

DE PSITACO.

Psitacus, Anglicè a *popiniay*, Germanicè εὐν παpegay.

ARISTOTELES¹.

Nam & Indica auis, cui nomen psitacæ, quam loqui aiunt², talis est, & loquacior³ quum biberit uinum, redditur.

PLINIUS⁴.

Super omnia humanas uoces reddunt psitaci, & quidem fermocinantes. India auem hanc mittit. Psitacen uocant, uiridẽ toto corpore, torque tantũ miniato in ceruice distinctã. Imperatores salutat, & quæ accipit uerba, pronunciat: in uino p̄cipuè lasciuia. Capiti eius duritia eadem quæ rostro. Hæc cũ loqui discit, ferreo uerberatur radio: nõ sentit aliter ictus.

[p. 124] Cũ deuolat, rostro se excipit, illi innitur, leuioremq̄ se ita pedum infirmitati facit.

DE PLATEA.

Πέλεκαν, *platea*, *platelea*, *pelecanus*, Anglicè a *shouelard*, Germa. εὐν lesler/ od' εὐν löffel gāß.

ARISTOTELES⁵.

Platea fluuiatilis, conchas maiusculas, leuesq̄ deuorat, quas ubi sua ingluuie coxerit, euomit, ut hiantibus testis exuens, legat atque edat.

PLINIUS⁶.

Platea nominatur aduolans ad eas, quæ se in mari mergunt, & capita illarum morfu corri-

¹ *Hist. An.* Bk VIII. 85.

² τὸ λεγόμενον ἀνθρωπόγλωττον.

³ ἀκολαστότερον = reckless.

⁴ *Hist. Nat.* Lib. x. cap. xli.

⁵ *Hist. An.* Bk IX. 71.

⁶ *Hist. Nat.* Lib. x. cap. xl.

OF THE PSITACUS.

Psitacus, in English a popinjay, in German eyn papegay.

ARISTOTLE.

An Indian bird indeed, the Psitace by name, which people say can speak, is such a one as this, and is reported as more talkative after it has drunk wine.

PLINY.

Beyond all Psitaci repeat men's words, and even talk connectedly. India sends this bird, which they call Psitace, with the whole body green marked only by a scarlet ring upon the nape. It will pronounce "Hail Emperor," and any words it hears; it is especially sportive after wine. The hardness of the head is the same as of the beak. And when the bird is being taught to speak, it is beaten with an iron rod, else it feels not the strokes. When it flies down it receives its weight upon its beak, and supports itself thereon; and thus lightens itself to remedy the weakness of its feet.

OF THE PLATEA.

Πελεκάν, platea, platelea, pelecanus, in English, a shovellard, in German eyn lefler or eyn löffel ganss.

ARISTOTLE.

The Platea, a river bird, devours biggish shellfish, if they be but smooth, and, after it has seethed them in its crop, it casts them up again, that stripping them off from their gaping shells, it so may pick and eat them.

PLINY.

The Platea, as it is called, flies at those birds which dive below the sea, and seizes their heads with a bite

piens, donec capturam extorqueat. Eadem cum se deuoratis impleuit conchis, calore uentris coctas, euomit, atque ita esculenta legit, testas excernens.

[p. 125]

HIERONYMUS.

Pellicani cum suos à serpente filios occisos inueniunt, lugent, seque & sua latera percutiunt, & fanguine excusso, corpora mortuorum sic reuiuifcunt.

Conradus Gestnerus, cum Tiguri agerem, homo ut doctissimus, ita candidissimus, huius mihi auis cognitionem (ut fatear, per quem profeci) primus omnium communicauit, & ideo Germanis lesterā uocari docuit, quod rostrū cochleari simile haberet.

DE PORPHYRIONE EX PLINIO¹.

Porphyrion solus morfu bibit: idem ex proprio genere omnem cibū aqua subinde tingens, deinde pede ad rostrum ueluti manu adferēs, laudatissimi in comagene². Rostra ijs & prælonga crura rubent.

DE REGVLO.

Τροχίλος, πρέσβυς, βασιλεύς, trochilus, senator, regulus, Anglicè a uuren, Germanicè eyn funingſgen/oder eyn zaunfünigſ.

[p. 126]

ARISTOTELES³.

Trochilus & fruteta incolit, & foramina, capi difficulter potest, fugax atque infirmis moribus est, sed uictus probitate, & ingenij solertia præditus. uocatur idem senator & rex, quam ob rem aquilam cum eo pugnare referunt.

¹ *Hist. Nat. Lib. x. cap. xlvi.*

² It almost seems as if 'Comagene' should be 'Commageno,' in which case we might translate 'They are highly prized for ointment.'

³ *Hist. An. Bk IX. 75.*

until it wrenches their prey from them. So too when it has filled itself with shell-fish that it has devoured, it casts them up, seethed by its belly's heat, and so picks out the eatable parts, sifting off the shells.

HIERONYMUS.

Pelecani, when they find their young killed by a serpent, mourn, and beat themselves upon their sides, and with the blood discharged, they thus bring back to life the bodies of the dead.

Conrad Gesner, a man most learned as he also was most truthful, first imparted to me while I was at Zurich knowledge of this bird (that I may own from whom I profited), and taught me that it was called lefler by Germans because it has a spoon-shaped beak.

OF THE PORPHYRIO FROM PLINY.

The Porphyrio alone drinks with a bite, it also is peculiar in dipping all its food from time to time in water, and then bearing it to its beak with its foot, as with a hand. The best are found in Comagene. Their beaks and very long legs are red.

OF THE REGULUS.

Τροχιλος, πρέσβυς, βασιλεύς, trochilus, senator, regulus, in English a wren, in German eyn kuningssen or eyn zaun-küningk.

ARISTOTLE.

The Trochilus inhabits shrubberies and holes, and cannot easily be caught. Now it is shy and of a feeble habit, but endowed with great ability of getting food and knowledge of its craft. The same is called both senator and king, on which account the Aquila, they say, fights with it.

Trochilus, est auium omnium minima, cauda longa & semper erecta, rostro longiusculo, sed tenuissimo, colore ferè fuluo. nidum facit foris ex musco, intus ex plumis aut lana, aut floccis, sed plurimū ex plumis. Oui erecti & in altero suo fine cōsistentis, formā nidus habet, in medio ueluti latere hostiolum est, per quod ingreditur & egreditur. In posticis œdibus & stabulis stramine tectis, interdū nidū construit, sed sæpius in syluis. auis est etiam soliuaga, & gregatim nunquam uolat, imò quoties alium sui generis offendit, mox illi bellum indicit, & conflictatur. Quare aues illæ, quæ in Bauaria pennis auricoloribus, quas in capitibus ceu coronas aureas ferunt, in syluis æstate degentes, & gregatim ad urbes hyeme aduolantes, reguli non sunt sed tyranni Aristotelis, ut postea docebo.

[p. 127]

*DE RUBECULA ET
ruticilla.*

- Rubecula *Ἐρίθακος, ἢ ἐριθέα, rubecula, Anglicè a robin red-brest, Germanicè eyn rötbrust/ oder eyn rötfelchen.*
- Ruticilla. *Φοινικουρός, & ut alter textus habet, φοινικούργος, Plinio phœnicurus, Gazæ ruticilla, Anglicè a rede tale, Germanicè eyn röt sterḡ.*

ARISTOTELES¹.

Rubecula & ruticilla uermibus aluntur. Rubeculæ, & quæ ruticillæ appellantur, inuicem transeunt, est'que rubecula hyberni temporis, ruticilla æstiuæ, nec alio ferè inter se differunt, nisi pectoris colore & caudæ².

¹ *Hist. An.* Bk IX. 256.

² The three words 'pectoris & caudæ' are not in Aristotle.

The Trochilus is smallest of all birds, with a long tail¹ always cocked up, and a bill somewhat long but very slender, it is nearly reddish-brown in colour. The nest it makes is outwardly of moss and inwardly of feathers, wool, or down, but mainly of feathers. The nest has the form of an upright egg standing on one of its ends, while in the middle of one side there is a little postern as it were, by which the bird goes in and out. It sometimes builds its nest at the back of a house or in sheds thatched with straw, but usually in woods. It also is a bird that roves alone, and never flies in flocks; nay more, so often as it meets another of its kind it forthwith declares war, and fights. Wherefore the birds with plumes of gold-colour that they wear on their heads like golden crowns, which pass the summer in Bavaria in woods, and in the winter flock to towns, are not the Reguli of Aristotle, as I presently shall prove, but the Tyranni.

OF THE RUBECULA AND THE RUTICILLA.

Ἐρίθακος, ἢ ἐριθέα, rubecula, in English a robin redbreast, in German eyn rötbrust or eyn rötkelchen.

Φοινίκουρος, and, as another text has it, φοινικούργος, in Pliny phœnicurus, the ruticilla of Gaza, in English a rede tale, in German eyn rötstertz.

ARISTOTLE.

The Rubecula and the Ruticilla feed on worms. Rubeculæ and Ruticillæ, as the birds are called, change into one another, and what in winter is the Rubecula in summer is the Ruticilla², while they hardly differ from each other save in colour of the breast and tail.

¹ Turner evidently means the Wren (*Troglodytes parvulus*), but with this the 'long tail' does not agree; perhaps there is a misprint.

² As Sundevall remarks, Aristotle probably only meant that the Redstart was called φοινίκουρος in summer and ἐρίθακος in winter. Sundevall ascribes the misinterpretation to Gaza, whose work Turner admittedly used. This is the more likely as the section of Aristotle quoted concerns birds which change their plumage and note at different seasons.

Omnia, quæ hîc Aristoteles de duabus auibus istis conscripsit, Plinius ex ipso in opus suum transcripsit. Sed uterque hac in re, aucupum relatibus magis quàm sua experientia nixus, à ueritatis tramite longissimè aberrauit, nam utraque auis simul conspicitur, & rubeculæ domitæ, & in caueis alitæ, eandem perpetuò formam retinent. quin & eodem tempore nidulantes, [p. 128] sed modis longè diuersis sæpissimè in Anglia uidi. Rubecula, quæ non secus æstate quàm hyeme rubrû habet pectus, quàm possit longissimè ab oppidis et urbibus in densissimis uepretis, & fruticetis ad hunc modum nidulatur. Vbi multa querna reperit folia, aut quernis similia, ad radices ueprum, aut densiorum fruticum, inter ipsa folia nidum construit: & iam constructum, opere ueluti topiario folijs contegit. Nec ad nidum ubiq; patet aditus, sed una tantum uia ad nidum itur. ea quoque parte, qua nidum ingreditur, longum struit ex folijs ante hostium nidi uestibulum, cuius extremam partem partum exiēs, folijs claudit. Hæc, quæ nunc scribo, admodum puer obseruauî, non tamen inficias iuerim, quin aliter nidulari possit. Si qui alium nidulandi modum obseruauerint, edant, & huiusmodi rerum studiosis, & mihi cum primis nō parùm gratificabuntur. Ego, quod uidi, alijs candidè sum impertitus.

Rubeculæ
nidulatio

Phœnicurus
nidulatio.

Phœnicurus, quem rubicillam¹ uocat, in excauatis arboribus & (quod sæpè expertus sum) in rimis & fissuris murorum, posticarum cædiû, in medijs urbibus, sed ubi hominum minor frequentia concursat, nidulatur. Phœnicurus mas nigro est capite, & cauda rubra, cætera fœminæ, nisi quòd subinde cantillat, similis. Caudam [p. 129] semper motitat uterque. Phœnicura fœmina, & proles adeo rubeculæ pullis similes sunt, ut uix ab oculatissimo discerni possint. Verùm motu caudæ dignoscuntur. Rubeculæ licet caudam moueant, postquam tantu submiserint, statim erigunt, nec tremit bis aut ter more ruticillarû. Ruticillæ enim simul atque caudam mouere ceperint, non cessant donec ter aut quater simul

Rubeculâ
æstate can-
tantè nun-
quam audiui.

¹ No doubt a misprint for Ruticilla, cf. pp. 154, 160.

All that Aristotle here has written of these two birds Pliny has copied from him into his own work. But in this matter each of them, relying on the tales of fowlers more than on his own experience, has wandered greatly from the path of truth. For both the birds are seen at the same time; moreover tame *Rubeculæ*, when fed in cages, constantly retain the same appearance. Moreover I have very often seen the birds in England nesting at the same time, though in very different ways. The *Rubecula*, which has a ruddy breast no less in summer than in winter, nests as far as possible from towns and cities in the thickest briers and shrubs after this fashion. Where it finds oak leaves in plenty, or leaves like the oak, it builds its nest among the leaves themselves close to the roots of briers or the thicker shrubs: and when completed covers it with leaves as if with topiary work. Nor does access lie open to the nest on every side, but by one way alone is entrance gained. And at that place where it enters the nest the bird builds a long porch of leaves before the doorway and, on going forth to feed, closes the end with leaves. But, what I now describe, I first observed when quite a boy, nevertheless I am not going to deny that it may build otherwise. If any have observed another way of nesting, let them tell it, and they certainly will not a little gratify the students of such things, myself among the first. I have imparted truthfully to others what I saw.

The *Phœnicurus* which he [Gaza] calls the *Rubicilla* nests in hollow trees and (as I often have had experience) in chinks and cracks of walls and outhouses in the midst of our towns, though where the throng of men is not so great. The male has a black head, a red tail, but otherwise is like the female, save that he repeatedly utters a little song. Either sex flirts the tail continually. The female *Phœnicurus* and its brood are so much like young of *Rubecula* that they can scarcely be distinguished by the sharpest eye. But by the motion of the tail they may be recognised. For the *Rubeculæ*, although they move the tail, yet, after they have lowered it, at once raise it again, nor does it quiver twice or thrice as does that of the *Ruticilla*. For no sooner have the *Ruticillæ* once begun to move the tail than they go on till they have lightly moved it three or four times altogether

leuiter mouerint, ut alas, iuniores auiculæ cibum à matribus efflagitantes, motitant. Rubeculæ in æstate, ubi in syluis satis superq; alimenti suppetit, nec ullo infestantur frigore, (quæ res cogit illas in hyeme ad urbes, oppida & pagos confugere) cum prole ad desertissima quæq; loca secedunt. Quare, minùs mirandum est, rubeculas in æstate non passim occurrere. Ruticillas quid miri est in hyeme nō esse obuias, quum per totam hyemem delitefcant? Adhæc cūm rubeculæ pulli, in fine autumnii perfectam ferè in pectoribus rubedinem naçti, ad pagos & oppida propiùs accedunt, ruticillæ, quæ antea per totam æstatem cernebantur, disparent, nec amplius in proximum usque uer cernuntur. Quæ quum ita se habeant, quid Aristoteli aut illi hoc referentibus erroris ansam præbuerit, faciliè quiuuis potest colligere.

DE RVBETRA.

[p. 130] **Bátis**, Latinè rubetra dicta, ab Aristotele inter auiculas uermiuoras numeratur. Porrò, quænam auis sit, prorsus diuinare non possum. Gybertus Longolius linariam, siue miliariam esse rubetrâ putabat, quòd rubis crebrò insideat. Sed quum Anglorum buntinga in rubis tam frequēs sit, quid uetat quò minùs & ipsa quoq; batis dici possit. Nihil igitur certi habemus, quod nomen Britannicum aut Germanicum sit huic aui imponendum.

Sed quum auium supra commemoratarum altera seminibus herbarū uescatur, & altera hordeo & tritico, & batis Arist. uermiuora sit, delegēda est auicula quæpiam, quæ solis uermibus pascitur, qualis est auicula Anglis stonchattera, aut mortettera dicta, & Germanorum klein brachnogelchen. Hæc si batis non sit, mihi prorsus-ignota est. Porrò illa, quam Angli linotam, & Germani flasfincam uocant, ueteribus, si Ruellio, credimus, erit miliaria.

just as young small birds flutter their wings soliciting meat from their mothers. In summer, when there is enough and more of food found in the woods, and they are not troubled by any cold (a thing which forces them in winter to resort to cities, towns, and villages), *Rubeculæ* retire to the most solitary places with their young. And so it is no marvel that *Rubeculæ* do not occur in summer everywhere. And what wonder is it that *Ruticillæ* are not met with in winter, since throughout the whole of winter they are hidden? And further, when the young *Rubeculæ*, having almost assumed the full red on their breasts at the end of autumn, come nearer to towns and villages, the *Ruticillæ*, which were hitherto seen during the whole summer, disappear and then are no more noticed till the following spring. Wherefore, things being thus, anyone may easily perceive what gave a handle to Aristotle or to those who reported this error to him.

OF THE RUBETRA.

Baris, in Latin called *Rubetra*, is by Aristotle classed among the little birds that feed on worms. Beyond this I cannot guess at all what sort the bird may be. Yet Gybertus Longolius¹ believed that the *Rubetra* was the *Linaria* or the *Miliaria*, because it often perched on brambles. But since the Bunting of the English sits so commonly on brambles, what forbids that bird from also being called the *Batis*? On this account we have no certainty as to what name, British or German, should be given to this bird.

But inasmuch as of the birds mentioned above the one eats seeds of grasses, and the other wheat and barley, and as Aristotle's *Batis* lives on worms, some small bird must be chosen which eats worms and nothing else. Now such a little bird is that called by the English *Stonchatter* or *Mortetter* and the *klein brachvogelchen* of the Germans. If this be not the *Batis*, it is quite unknown to me. Besides that which the English call the *Linot* and the Germans the *flasfinc* must be the *Miliaria* of older works, if we believe *Ruellius*².

¹ For this author see Introduction.

² *Ruellius* wrote *De natura stirpium libri tres* (1536) and edited one or more medical or other works.

DE RVBICILLA.

Πυρρόυλας, *rubicilla*, Angli. a *bulfinche*, Germa. eyn blödtfīnē.

Rubicillam Aristoteles inter eas aues connumerat, quæ uermibus uescuntur: sed pluribus uerbis eam non describit. Ego nominis etymologiam secutus, rubicillam [p. 131] *Anglorum bulfincam, & Germanorum blouduincam esse conijcio. Nam omnium, quas unquam uidi auium mas in hoc genere, pectore est longè rubidissimo: fœmina uerò pectore toto est cinereo, cætera mari similis. Sed ut faciliùs omnes intelligant, de qua aue scribam, magnitudine passeris est, rostro breuissimo, latissimo, et nigerrimo, lingua latiore multò quã pro corporis magnitudine. Pars ea linguæ, quæ cibi sapores dijudicans, oris cælum tangit, carnea & nuda est, reliquæ partes cornea pellicula obducuntur. Supremam auis partem plumæ cyanæ contegunt. cauda nigra est, & capite etiam nigro, uescitur libentissimè primis illis gemmis ex arboribus ante folia & flores erumpentibus, & semine canabino. auis est imprimis docilis, & fistulam uoce sua proximè imitatur. nidulatur in sepibus, & oua quatuor excludit, ut plurima quinq;. eundem colorem per totum annum seruat, nec locum mutat. Quæ quum ita se habeant, non potest hæc atricapilla esse, ut quidam uolunt, utcunq; extremo linguæ acumine carere uideatur.*

DE SALO, QVI GRÆCE

ἀγυθος dicitur.

ARISTOTELES¹.

[p. 132] Salus uitæ commoditate, & partus numero commendatur, fed alterius pedis clauditate cedit. Sali & flori sanguinē misceri negant, tã ingens inter salum & florū feruet odiū. Salo etiam preliū cū afino est, propterea quòd afinus spi-

¹ *Hist. An.* Bk IX. 89, 22, 14.

OF THE RUBICILLA.

Πυρρόυλας¹, rubicilla, in English a bulfinche, in German eyn blödtfinck.

Aristotle counts the Rubicilla among those birds which feed on worms: but he does not describe it in more words. I, following the derivation of the name, conjecture that it is the Bulfinch of the English and the bloudvinc of the Germans. For of all the birds I ever saw the male of this kind has by far the reddest breast: the female however has the breast wholly grey, though otherwise like the male. But, that all may understand more easily about which bird I write, it is the size of a Sparrow, with the beak particularly short and broad and black, the tongue much broader than is in proportion to its body. That part of the tongue which discriminates the flavour of the food and meets the palate of the mouth is flesh-coloured and naked, while the other parts are covered with a horny pellicle. Bluish grey feathers clothe the upper parts. The tail is black and the head also black. It feeds most greedily on those earliest buds, which burst out on the trees before the leaves and flowers, as well as hemp-seed. It is the readiest bird to learn, and imitates a pipe very closely with its voice. It nests in hedges where it lays four eggs or five at most. It keeps the same colour throughout the year, and does not change its home. And since these things are so, it cannot be the *Atricapilla*, as some will have it, though it may appear to lack the point at the tip of the tongue.

OF THE SALUS, WHICH IN GREEK IS CALLED αἴγιθος.

ARISTOTLE.

The Salus is well thought of for its skill in gaining a livelihood, and for the number of its young, although it suffers from lameness in one of its feet. And men deny that the blood of the Salus and the *Florus* ever mixes, for so great an enmity rages between the birds. There is war also between the Salus and the Ass,

¹ Sundevall thinks that the Πυρρόυλας is the Redbreast, but the description does not agree with his idea. Another reading is πυρρουράς.

netis sua ulcera scabendi causa atterat: tum igitur ob eam rem, tū etiam quod si uocem rudentis audierit¹, oua abigat per abortum, pulli etiam metu in terram labantur. Itaque ob eam iniuriam aduolās, ulcera eius rostro excauat.

PLINIUS².

Aegithus auis minima cum asino pugnat, spinetis enim se scabendi causa atterens, nidos eius dissipat, quod aded pauet, ut uoce audita omnino rudentis oua eiiciat, & pulli ipsi metu [p. 133] cadant: igitur aduolans ulcera eius rostro excauat.

DE SITTA.

Sitta, Anglicè a nut iobber, Germanicè eyn nusshäffer oder eyn meyspecht.

ARISTOTELES³.

Sunt & ei, quæ sitta dicitur, mores pugna- ces, sed animus hilaris, cōcinnus, compos uitæ facilioris. Rē maleficam illi tribuunt, quia rerum callat cognitione, prolem numerosam facilemque progignit, cariosa ligna contundens, ex coffis, quos inde eruit, uictitat. Sitta⁴ aquilæ oua frangit, aquila tum ob eam rem, quum etiam quod carniuora est, aduersatur.

Auicula, quam Angli nucipetam uocant, & Germani meyspechtum, raro maximo paulò maior est, pennis cyaneis, rostro longiusculo, & per arbores eodem modo, quo picus ascendit, & easdem uictus gratia contundit: nuces rostro etiam perforat, & nucleos commedit. nidu- [p. 134] latur in cauis arboribus more pici, uoce ualde acuta & sonora est.

¹ Aristotle has 'κὰν ἀγκήσῃται, ἐκβάλλει τὰ ὠὰ καὶ τοὺς νεοττοὺς,' as if the bray of the ass shook the eggs and young out of the nest. Gaza seems to have had the reading ἐκτίκτουσι for ἐκπίπτουσι

² *Hist. Nat.* Lib. X. cap. lxxiv.

³ *Hist. An.* Bk IX. 91, very freely rendered.

⁴ *Hist. An.* Bk IX. 17

because the Ass is wont to rub its sores against the thorn-bushes to scratch them, therefore for this cause, and also because the bird has heard the brayer's voice it prematurely drops its eggs, while even nestlings fall down to the ground with fear. So for that injury (the bird) attacking it scoops out its sores.

PLINY.

The *Ægithus*, a very little bird, wages war with the Ass, because it, rubbing against thorn-bushes to scratch itself, destroys the nest, and this the bird dreads so much that, if it merely hears the brayer's voice, it drops its eggs, and the young also fall to the ground with fear. Accordingly attacking it the bird scoops out its sores.

OF THE SITTA.

Sitta, in English a nut jobber, in German *eyn nushäkker* or *eyn meyspecht*.

ARISTOTLE.

That bird which is called Sitta has pugnacious habits but a cheerful disposition ; it is elegant and well adapted to get food with ease. Yet men attribute witchcraft to it, since it is cunning in knowledge of affairs ; it produces numerous young with ease ; hammering on rotten trees, it lives upon the grubs which thence it digs. The Sitta breaks the eggs of the *Aquila*, on which account, and also since it is carnivorous, the *Aquila* is its enemy.

The small bird which the English call the Nut-seeker and Germans the *meyspecht* is somewhat bigger than the biggest *Parus*, with blue plumage and a longish beak. It climbs trees in the same way as the *Picus*, and hammers the same for food ; it also bores nuts with its beak, and eats the kernels. It nests in hollow trees, as does the *Picus*, while its note is very sharp and loud.

DE STRUTHIONE.

Στρουθὸς, λιβυκός, *struthio*, aut *struthiocamelus*,
Anglicè an oiftris, *Germanicè eyn strauß*.

ARISTOTELES¹.

Struthio, etiam libicus, eodem modo partim auem, partim quadrupedem refert, quippe qui non ut quadrupes pennas habeat, ut non auis sublimis non uolet, nec pennas ad uolandum commodas gerit, sed pilis similes. Itē quasi quadrupes sit, pilos habet palbebrę superioris, & gibber² capite, parte colli superiore est. Itaq; cilia habet pilosiora, sed quasi auis sit, infrā pennis integitur. Bipes etiam tanquam auis, bif-fulcus tanquam quadrupes est. Nō enim digitos habet, sed unguam bipartitam. quarum rerum [p. 135] causa est, quòd magnitudine non auis, sed quadrupes est. Magnitudinem enim auis minimam esse propè dixerim, necesse est. Corpus enim molem sublimem mouere, nequaquam facile est.

DE STVRNO.

Ψάρος, *sturnus*, *Anglicè a sterlyng*, *Germanicè eyn stür/ ober eyn stör*.

ARISTOTELES³.

Sturnus niger est, albis maculis distinctus, magnitudine merulæ.

PLINIUS⁴.

Sturnorum generi proprium, cateruatim uolare, & quodam pilæ orbe circumagi, omnibus in medium agmen tendentibus.

¹ *De partibus Animalium*, IV. 14.

² No doubt a misprint for 'glaber.'

³ *Hist. An.* Bk IX. 102; freely rendered.

⁴ *Hist. Nat.* Lib. X. cap. xxiv.

OF THE STRUTHIO.

Στρουθός, λιβυκός, struthio or struthiocamelus, in English an oistris, in German eyn strauss.

ARISTOTLE.

The Struthio, or Libyan bird, in like manner partly recalls a bird, partly a quadruped, seeing that it, unlike a quadruped, has wings, and yet, unlike a bird, it does not fly aloft, nor has it feathers fit for flight, since they resemble hairs. Likewise as if it were a quadruped, it has hairs on the upper eyelid, while the head and upper portion of the neck are bare. So also it has somewhat hairy eyelashes, yet it is covered with feathers beneath, as if it were a bird. Moreover it is biped like a bird, but yet it is cloven-footed like a quadruped. That is, it has not toes but a divided hoof. The cause of these things is that in its size it is not a bird but a quadruped. For I would almost say that a bird's size must be extremely small, for it is by no means easy to move aloft a body when the mass is vast.

OF THE STURNUS.

Ψάρος, sturnus, in English a sterlyng, in German eyn stür or eyn stör.

ARISTOTLE.

The Sturnus is black, varied with white spots, and of the bigness of a Merula.

PLINY.

It is peculiar to Starlings in their kind to fly in crowds, and wheel about as it were in a ball, all tending to the middle of the band.

DE TINVNCVLO.

Κέγγρις, *tinunculus*, Anglicè a *kistrel*, or a *kaftrel*, or a *steingall*.

ARISTOTELES¹.

[p. 136] Omnes, quibus ungues adunci, parcius generant, excepto tinunculo, qui plurima in adunco genere parit. Iam enim quatuor eius reperti sunt pulli, sed plures etiam procreari posse, apertum est. Tinunculo² uentriculus ingluuiei similis est, & solus in adunco genere bibit. Rubra sunt eius oua modo minij.

Tinunculus colore multò magis est fuluo quàm reliqui accipitres, & corpore paruo. Auiculas insequitur, & ut quidam mihi retulère, papiliones interdum. In cauis nidulatur arboribus, & in templorum muris, & æditiõibus turribus, ut apud Germanos Argentorati & Coloniae, & apud Anglos Morpeti obseruauit. pullos etiam diu uolantes tantisper alit, dũ ipsi ex proprio uenatu uiuere possũt.

DE TETRAONE.

Τέτριξ, ὄυραξ, *tetrao*, Anglicè a *bustard*, or a *bistard*, Germanicè *eyn trāp/* oder *eyn trap gāns*.

ARISTOTELES³.

[p. 137] Tetrrix, quam Athenienses uragem uocant, nec terræ, nec arbori suum nidum committit, sed frutici⁴.

PLINIUS⁵.

Decet tetraones suus nitor, absolutaq; nigritia, in supercilijs cocci rubor. Alterum eorum genus uulturum magnitudinẽ excedit, quorum

¹ *Hist. An.* Bk VI. 2.

² *Hist. An.* Bk II. 88, Bk VIII. 50, Bk VI. 6.

³ *Hist. An.* Bk. VI. 4.

⁴ Aristotle has *χαμαιζήλους φντοίς*.

⁵ *Hist. Nat.* Lib. X. cap. xxii.

OF THE TINNUNCULUS.

Κερχρίς, tinnunculus, in English a kistrel or a kastrel, or a steingall.

ARISTOTLE.

All birds with crooked claws¹ breed somewhat sparingly, save the Tinnunculus, and it of all the crooked-claw kind lays the most eggs. For of this bird four young have been already found, while it is evident that more might be produced. The stomach in Tinnunculus is not unlike a crop, whereas it is the only one of all the crooked-claw kind that drinks. Its eggs are red—like scarlet.

The Tinnunculus is of a much more fulvous colour than are other Hawks, and small in body. It chases little birds, and, as some men have told me, butterflies at times. It nests in hollow trees, church walls, and lofty towers, as I have seen in Germany at Strassburg and at Cullen, and in England at Morpeth. It also feeds its young long after they can fly until such time as they can live apart by hunting for themselves.

OF THE TETRAO.

Τέτριξ, οὔραξ, tetrao, in English a bustard or a bistard, in German eyn tröp or eyn trap gänss.

ARISTOTLE.

The Tetric, which Athenians call the Urax, trusts its nest not to the ground, nor to a tree, but to low-growing plants.

PLINY.

Their glossy plumage well becomes the Tetraones, as does furthermore their perfect blackness and the scarlet redness of their eyebrows. But one kind exceeds in size the vultures and recalls their colour-

¹ For Aristotle's groups of Birds see p. 35.

et colorem reddit. Nec ulla auis, excepto fruthiocamelo, maius corpore implēs pondus, in tantum aucta, ut in terra quoq; præhendatur. gignunt eos alpes, & septentrionalis regio. In uiuarijs saporem perdunt. Moriuntur contumacia spiritu reuocato. Proximæ eis sunt, quas Hispani aues tardas appellāt, Græcia otidas dānatas cibus. Emiffa enim offibus medulla, odoris tēdium extemplo fequitur.

[p. 138]

DE TYRANNO.

Tyrannus, Anglicè a nyn murder, Germanicè eyn neun mürder/ oder eyn gold hendlin.

ARISTOTELES¹.

Vescitur & uermibus tyrannus, cui corpus non multò amplius quā locustæ, crista rutila ex pluma elatiuscula, & cætera elegans, cantuq; suaui hæc auicula est.

Quanquam Aristoteles unum tantum tyranni genus faciat, Colonienses tamen aucupes tria genera esse contendunt. Primum uocant die grosse neun murder, quod Angli etiam schricum nominant: & ego Aristoteles mollicipitem esse conijcio: sturnum magnitudine æquat, color eius à cyaneo ad cinereum uergit. Secundum genus eiusdem est coloris, cuius & superius, sed passerem magnitudine non excedit. Hoc genus etiam in aues sæuit. Tertium genus, quod Aristotelis tyrannus est, auicula est regulo paulò maior, crista rutila redimita, & cæteris generibus (si aucupibus credere phas² fit) cede³ & corporis effigie non dissimilis. Secundum & tertium tyranni genus apud Anglos hæctenus nunquam uidere [p. 139] contigit, & primum genus licet in Anglia sit, paucissimis tamen notum est: sunt tamen, qui norunt, & schricum uocant.

¹ *Hist. An.* Bk VIII. 41.

² Of course a misprint for 'fas.'

³ No doubt this should be 'sede.'

ing. There is no other bird, except the *Struthio-camelus*, which attains so great a weight of body, growing to such a size that it may even be caught upon the ground. The Alps produce them, as do northern lands. In mews they lose their flavour. They die of stubbornness by holding back their breath. Very near them are those which Spaniards call "*Aves tardæ*" and Greece "*Otides*"; they are condemned as food. For when the marrow issues from the bones, disgust at the smell follows there and then¹.

OF THE TYRANNUS.

Tyrannus, in English a nyn murder, in German *eyn neun mürder* or *eyn gold hendlin*.

ARISTOTLE.

The Tyrannus also lives on worms². Its body is but little larger than a locust's is. This little bird moreover has a somewhat upright crest of reddish feathers, and is otherwise pretty; its song is sweet.

Though Aristotle makes but one kind of Tyrannus, yet the bird-catchers of Cullen state that there are three. The first they call *die grosse neun mürder*, which the English name the *Schric* for their part, this I take to be the *Molliceps* of Aristotle. In size it equals the *Sturnus*, while its colour verges from blue to grey. The second kind is of the same colour as the foregoing, but in size does not exceed a Sparrow. Furthermore this kind is cruel towards other birds. The third kind, which is Aristotle's Tyrannus, is a small bird which is little bigger than the *Regulus*, adorned with a red crest and not unlike the other kinds (if it be right to trust the fowlers) in its haunts and form of body. It has not ever happened to me hitherto in England to observe the second or the third kind of Tyrannus and, although the first exists in England, it is known to very few. Yet there are some who know it and who call it *Schric*.

¹ See p. 106.

² See p. 35.

DE TRYNGA.

Τρύγγας, trynga, Anglicè a uwater hen, or a mot hen, Germanicè eyn wasser hen.

ARISTOTELES¹.

Lacus & fluuios petunt iunco, cinclus, & trynga², quæ inter hæc minora, maiuscula est, turdo enim æquiparatur: omnibus his cauda motitat.

Iam, ut sciatis, quam auem tryngam esse putem, auis tota pulla est, excepta ea caudæ parte, quæ podicem tegit, ea enim candida est, & tum cernitur, cùm caudam erigit. alis parùm ualet, atque ideo breues facit uolatus. In stagnis, quæ nobilium cædes obducunt, & in piscinis apud Anglos plerunq; degit. Si quando periclitatur, ad arundineta densiora solet confugere.

DE TVRDO.

Κίχλα, turdus, Anglicè à thrusche, Germanicè eyn frammejuögel/ ober eyn wachholteruögel.

[p. 140]

ARISTOTELES³.

Turdorum tria sunt genera, unū uisciurū, quod nisi uisco refinaq; non uescitur, & magnitudine picæ est. Alterum pilare, quod sonat acute. & magnitudine merulæ est. Tertium quod iliacum quidam uocāt, minimum inter hæc, minusque maculis distinctum est. Mutat⁴ & turdus colorē, quippe collo ætate uarius, hyeme distinctus spectetur, uoce tamē eadē est. Turdus⁵ nidos ex luto, ut hirundines, facit, in excelsis arboribus, ita deinceps continuato opere,

¹ *Hist. An.* Bk VIII. 47.

² Another reading is τρύγαργος; but this word is elsewhere used of an Eagle, cf. p. 30.

³ *Hist. An.* Bk IX. 96.

⁴ *Hist. An.* Bk IX. 254.

⁵ *Hist. An.* Bk VI. 3.

OF THE TRYNGA.

Τρύγγας, trynga, in English a water hen or a mot hen, in German eyn wasser hen.

ARISTOTLE.

The Junco and the Cinclus live on lakes and streams, as does the Trynga, which among these little birds is somewhat largest, for it equals in its size a Turdus; all these wag their tails.

And now, that you may know what bird I think the Trynga is, it is an altogether dusky bird, save that part of the tail which lies above the vent, for that is white and only visible when it erects its tail. It is weak on the wing, and therefore takes short flights. In England for the most part it haunts moats which surround the houses of the great, and fishponds. If danger ever threatens it is wont to flee to the thicker reed-beds.

OF THE TURDUS.

Κίχλα, turdus, in English a thrusche, in German eyn krammesvögel or eyn wachholtervögel.

ARISTOTLE.

There are three kinds of Turdi, one of which is called the Viscivorus, since it feeds on naught but mistletoe and gum, and is of the size of a Pica. The second, the Pilaris, which has a sharp note, is of the same size as a Merula. The third, which some call the Iliacus, is the least of them and less marked with spots. The Turdus changes colour also, since it may be seen mottled upon the neck in summer, while in winter it is spotted, though its voice continues similar. The Turdus makes its nests of mud, as do Hirundines, and places them in lofty trees, the building

ut quasi catena quædã nidorum contexta uideatur.

PLINIUS¹.

Turdi hyeme maximè in Germania cernuntur.

[p. 141] *Primum turdi genus Angli peculiariter nominant a thrushe, & Germani (nisi me fallant aucupes, qui me sic uocare docuerunt) eyn crammesuoegel. Secundum genus Angli uocant a throffel, aut a mauis, Germani eyn droffel, aut eyn durstel. Tertium genus ab Anglis a uuyngthrushe, & à Germanis eyn uueingaerdsuoegel nuncupatur. Hic turdus utrinque iuxta oculos, & in pectore & in ipso alæ flexu, intus & foris maculas habet latiusculas rubras. Huius nidum nunquam uidi: nec mirum, quum per æstatem apud nos nusquam uideatur. primum genus non nisi hyeme in Anglia cernitur, aut si uideatur, rarum est. Secundum genus per totum annum apparet maculoso ualde pectore, & catus sui gratia à multis in caueis alitur. Nidum intus ex luto aut lignorum carie liquore mixta, & artificiosè leuigata, foris ex musco in ramis arborum aut fruticum facit.*

Turdus primus.
Secundus.
Tertius.

DE VIREONE.

Χλωρόλον, uireo, Anglicè a uuituuol, Germanicè eyn witwol/ oder eyn weidwail/ oder eyn kerserife.

ARISTOTELES².

Vireo docilis, & ad uitæ munia ingeniosus [p. 142] notatur, sed malè uolat, nec grati coloris est. Vireo³ totus uiridis ex obscuro⁴ est, hyeme hic non uidetur, sed æstiuo solstitio potissimum uenit in conspectum. Discedit exortu arcturi fyderis, magnitudine turturis est.

¹ *Hist. Nat. Lib. x. cap. xxiv.*

² *Hist. An. Bk IX. 89.*

³ *Hist. An. Bk IX. 98.*

⁴ These two words are not in Aristotle.

being so continuous as to seem almost like a chain of nests woven together.

PLINY.

The Turdi are in winter chiefly seen in Germany.

The first kind of Turdus Englishmen particularly name a Thrush, and Germans (if the bird-catchers, who taught me so to call it, lead me not astray) *eyn crammesvogel*. The second kind the English call a Throssel or a Mavis, but the Germans say *eyn drossel* or *eyn durstel*. The third is named a *Wynghrushe* by the English and *eyn weingaerdsvogel* by the Germans. This Turdus has broadish red spots on each side near the eyes, as well as on the breast, and also both inside and outside at the bend of the wing. But I have never seen its nest, nor is that wonderful, since it is nowhere to be seen with us throughout the summer. The first kind is not observed in England save in winter, or, if it be seen, it is unusual. The second kind, with a much spotted breast appears throughout the year, and by many is kept in cages for its song. It builds a nest, moreover, inwardly of mud or else of rotten wood tempered with moisture and smoothed skilfully, and outwardly of moss, upon the boughs of trees or shrubs.

OF THE VIREO.

Χλωρίων, vireo, in English a witwol, in German *eyn witwol* or *eyn weidwail*, or *eyn kersenrife*.

ARISTOTLE.

The Vireo is teachable, and is remarkable for its capacity for the duties of life; but it flies badly and is not of a pleasing colour¹. The Vireo is wholly of a dusky green; it is not seen in winter here, but comes chiefly in view about the summer solstice, it departs at the rise of the star Arcturus, and is of the size of the Turtur.

¹ Cf. p. 86.

Vireonem (quod scio) in Anglia nunquam uidi, sed in Germania sæpissimè. turture paulò minor est. Vocem fistulæ grandiusculæ, quæ infimam cantionis partem sustinet, similem emittit. Nidum in ramo quem in summa arbore suspendit, in formam rotundam construit, ne cui hominum aut ferarū ad eum pateret aditus.

DE VPVPA.

ἔπιπτος, upupa, Anglicè a houupe, Germanicè eyn houy/ oder eyn widhopff.

ARISTOTELES¹.

Vpupa potissimùm nidum è stercore hominis facit. Mutat faciē tempore æstatis & hyemis, sicut & cæterarum quoque agrestium plurimæ.
 [p. 143] Vpupa² una in suo genere non nidificat, sed stipes arborum subiens, parit sine ullo stramento, in cauis.

Anglorū
lapuuingā
non esse
upupam.

Literatores pleriq; omnes Britannici, upupam eam nominant auem, quam barbari ab alarum strepitu, uannellum nuncupant, & ipsi sua lingua lapuuingam uocant. Verùm istorum crassus error facilè auctoritate Plinij³ de upupa ita scribentis, confutatur: Vpupa (inquit) obscœna aliàs pastu auis, crista uifenda plicatili, cōtrahens eam, subrigensq; per longitudinem capitis. Hæc ille. Sed Grammaticis nostris hic error est facilè condonandus, nam nusquam in tota Britannia upupa (quod ego scio) reperiri potest, apud Germanos tamen frequentissima. Ea est magnitudine turdi, alis per interualla fuscis, albis & nigris pennis distinctis, crista in capite ab ea parte rostri, qua capiti committitur, ad extremum usq; occiput in lōgitudinem porrigitur, quam pro adfētibus suis aut contrahit,

¹ *Hist. An.* Bk IX. 88.

² *Hist. An.* Bk VI. 4.

³ *Hist. Nat.* Lib. X. cap. xxix.

I have never seen the Vireo in England, so far as I know, but very often when in Germany. It is a little smaller than the Turtur. It gives forth a note like that of the large pipe which plays the bass part of a song. This bird suspends its nest upon a branch at the top of a tree, and fashions it in rounded form, that it should not afford access to any man or beast.

OF THE UPUPA.

ἔποψ, upupa, in English a howpe, in German eyn houp or eyn widhopff.

ARISTOTLE.

The Upupa builds its nest chiefly of human dung. It changes its appearance in the summer season and in winter, as very many other wild birds do. The Upupa only of its kind builds not a nest, but entering the trunks of trees lays eggs in cavities, without any litter.

Nearly all British writers name that bird Upupa, which from the noise of its wings foreigners call Vannellus, though in their own tongue the former call it Lapwing. Yet their gross error may be easily refuted on the authority of Pliny, who thus writes of the Upupa.

The Upupa (he says) is a bird filthy otherwise as to its food, but to be noticed for its folding crest, which it contracts and then erects again along its head.

These are his very words. And yet our scholars may be well excused this their mistake, for nowhere in the whole of Britain is the Upupa to be found (so far as I know), though in Germany it is most plentiful. The bird is of the bigness of a Thrush, with wings barred here and there with brown, and marked with black and white feathers; the crest extends from the part of the bill which joins the head to the extremity of the occiput, along the length, this it contracts

aut dilatata, ut equus aures arrigit aut demittit. tibijs est ualde breuibus, alis obtusioribus, & lentè admodum uolat.

[p. 144]

DE VRINATRICE.

Κολυμβρίς, *urinatrix*, *Angl. a douker*, *Germa. eyn dücher*.

ARISTOTELES¹.

Alia degunt quidem in fluido, uictumq; inde petunt, sed aërem nõ humorẽ recipiunt, & foris pärere solent. Complura huius generis sunt, partim gressilia ut lutra, latæ & crocodilus: partim uolucres ut mergi & urinatrices.

Aristoteles urinatricis unum tantum genus commemorat, ego tamen tria urinatricum genera uidi. Horum primum totum nigrum est. & si cirrum, quẽ in capite gerit, exceperis, mergo, quo tamen triplo minor est: cætera, quod ad corporis attinet effigiẽ, non dissimile est. & hoc genus nautæ nostrates lounam nominant. alii

or spreads again according as it is disposed, as a horse pricks or droops its ears. It has very short legs and rounded wings, while it flies somewhat slowly.

OF THE URINATRIX.

Κολυμβίς, urinatrix, in English a douker, in German eyn dücher.

ARISTOTLE.

But other animals in truth live in the water and thence seek their food, yet they breathe air and not moisture, and they are wont to breed out of the water. Now there are many of this sort, in part going afoot, as are the Lutra, Latax, and Crocodilus; and in part winged, as the Mergi and the Urinatrices.

Aristotle makes mention only of one kind of Urinatrix, but I have observed three kinds of Urinatrices. Of these the first is wholly black, and, except for the tuft it bears upon its head, is not unlike the Mergus otherwise, so far as the outline of its body goes, though it is one-third less in size. This is the sort our sailors call the Loun, but others the Douker. The second kind, no bigger than a Thrush, is like a Duck in colour and in form of body; this the English call the middle Urinatrix. The third kind, when it is but newly hatched, recalls a Gosling, so that if its beak were not a little more slender you could scarce discern the one bird from the other. For it has no quills, but in place of these a sort of down. These three kinds for the most part live on stagnant waters or not very rapid rivers, on the banks of which grow reeds and sedges.

OF THE VULTUR.

Γύψ, vultur, in English a geir, in German eyn geyr.

ARISTOTLE.

The Vulture nests in very lofty rocks, and thus it chances that the nest and young are rarely to be seen.

quocirca Herodotus Brifonis rhetoris pater, uultures ex diuerso orbe nobis incognito aduolare putauit, argumēto quòd nidum nemo uidiffet uulturis, & quòd multi exercitum sequētes, repentè appareant. Sed quanquam difficile nidum eius alitis uideris: tamen uifus aliquan-
 [p. 146] do est. Pariunt uultures oua bina. Cætera, quæ carne uescuntur, non plus quàm femel anno pàrere exploratum est.

PLINIUS ¹.

Vulturum præualent nigri, nidos nemo attingit, ideo etiam fuère, qui putarent ex aduerso orbe aduolare falso. Nidificant enim in excelssissimis rupibus. Fœtus quidem sæpè cernuntur ferè bini. Vmbrius auruspiciū nostro æuo peritissimus, pàrere tradit tria, uno ex his reliqua oua nidūq; lustrare, moxq; abijcere. Tri-duo autè aut biduo uolare eos, ubi cadauera futura sunt.

Perperã Grammatici quidam uulturẽ, gryphem nominant, uulturem & gryphem ineptè confundentes. quum gryps sit a gryphen, animal ut creditur uolatile & quadrupes.

¹ *Hist. Nat. Lib. x. cap. vi.*

Wherefore Herodotus, the father of the rhetorician Briso, thought that Vultures winged it from some other world unknown to us, his argument being that nobody had ever seen a Vulture's nest, although a multitude at once come into sight when following an army. And yet, however difficult it be to see the nest of this bird, still it has been seen at certain times. Vultures lay two eggs each. Besides it is a well-known fact that animals which feed on flesh do not breed more than once a year.

PLINY.

Of Vultures the black are most plentiful. No one has ever reached their nests and therefore there have been some who erroneously thought that they flew hither from another world. They really nest in very lofty rocks. Indeed the offspring, generally twins, are often seen. Umbricius, the most skilful augur of our age, asserts that they lay three eggs, with one of which they cleanse the others and purify the nest, and afterwards throw it away. And that they fly three or two days beforehand to a place where carcasses are likely to be found.

Quite wrongly certain scholars call the Vulture Gryps, confounding foolishly the Vulture and the Gryps, since the Gryps is a Gryphon, or an animal believed to be both winged and quadruped.

AVIVM LOCI COMMVNES ex Ariftotele.

SI Plinium, Ariftotelē, Ariftophanē aut quemcūq; alium idoneum ſcriptorem te legere contingat, locos huiusmodi cōmunes, quales exempli tantū gratia ſubiſciam, in procinctu, libro inſcriptos chartaceo habere expedit, ut ad eos aues omnes, de quibus apud iſtos legis, certo referas, quod ſi feceris, nō dubito quin in auiū cognitione multūm breui ſis profecturus.

Appendices habentes.

Olor, anſer, anas, gallinaceus, perdix, ciconia, aſcalaphus, tarda, noctua, paſſer.

Ingluuias habentes.

Gallinaceus, palumbes, perdix & columbus.

Gulas totas amplas habentes.

Anſer, anas, gauia, cataracta, & tarda.

Gregales aues.

Olor, anſer minor, grus, & platea.

Frugibus uictitantes.

Palumbes, columbus, turtur, & uinago.

Lacus frequentantes.

Ardeola, albardeola, ciconia, gauia cineria, iunco, cinclus, trynga, calidris, & alcedones.

Mare frequentantes.

Alcedo, carulus, gauia alba, fulica, mergus, rupex & cataracta.

COMMON PLACES, REFERRING TO BIRDS,
FROM ARISTOTLE.

IF it should happen that you read Pliny, Aristotle, Aristophanes, or any other suitable writer, it is fitting to have ready for use such Common Places of this kind as I will add for the sake of example only, written in a note-book, that you may with certainty refer to all those birds, of which you read in their pages. And if you do this, I doubt not that in a short time you will make great progress in the knowledge of birds.

Those having appendices¹.

Olor, anser, anas, gallinaceus, perdix, ciconia, ascalaphus, tarda, noctua, passer.

Those having craves.

Gallinaceus, palumbes, perdix, and columbus.

Those having wide gullets.

Anser, anas, gavia, cataracta, and tarda.

Gregarious birds.

Olor, the smaller anser, grus, and platea.

Those living on crops.

Palumbes, columbus, turtur, and vinago.

Those frequenting lakes.

Ardeola, albardeola, ciconia, the grey gavia, junco, cinclus, trynga, calidris, and alcedones.

Those frequenting the sea.

Alcedo, carulus², the white gavia, fulica, mergus, rupex³, and cataracta.

¹ That is *cæca* or blind-guts.

² κύανος.

³ Perhaps χαρδριός.

Amnes & lacus frequentantes.

*Olor, anas, phalaris, urinatrix, bosca, coruus pal-
mipes, uterque anser, uulpanser, capella, penelops, aquila
marina.*

Spinas appetentes.

Spinus, carduelis, & auriuittis.

Culicibus uictitantes.

Pici Martij, galgulus, culicilega.

*Vermibus aut ex toto aut magna ex parte
uictitantes.*

*Fringilla, passer, rubetra, luteola, & pari omnes,
ficedula, atricapilla, rubicilla, rubecula, syluia, curuca,
asylus, florus, montifringilla, regulus & frugilega.*

*Plures locos cuique licebit huius modi
excogitare.*

Those frequenting rivers and lakes.

Olor, anas, phalaris, urinatrix, bosca, the web-footed corvus, either kind of anser, vulpanser, capella, penelops, the sea aquila.

Those feeding on thistles.

Spinus, carduelis, and aurivittis.

Those feeding on insects.

Pici martii, galgulus, culicilega.

Those feeding on worms, either wholly, or for the most part.

Fringilla, passer, rubetra, luteola, and all the pari, ficedula, atricapilla, rubicilla, rubecula, sylvia, curuca, asylus, florus, montifringilla, regulus, and frugilega.

Any one may devise more Places of this sort.

NON deerunt forsan, qui mihi hoc uicio uerfuri funt, quòd libellus ifte meus coniecturarum multò plus quàm certarum adfertionum in fe contineat : quibus refpondeo, in re ardua, & nondum fatis explorata mihi confultius & modèftius uideri, hēfitanter & modèfte coniectando ueftigare, & ita inquirere, quàm temere & impudenter de rebus incompertis pronunciare. Quòd autem de moribus & medicinis auium nihil hic fcripferim, in caufa fuerunt, temporis anni infelicitas, & anguftia (breuiori enim fpacio quàm duobus menfibus totus liber [p. 150] confcriptus eft) & pecuniæ copia minor, quàm quæ huiufmodi negotio abfoluendo fufficeret. Nam quis fine magna pecuniæ ui in longinquas regiones proficifci potèft, peregrinarum auium formas & mores contemplaturus, & illic diu ea de caufa manfurus? Quis familia aut uocatione fua, aut alijs negocijs foras prodire prohibitus, fine maximis impenfis omnia auium genera ab aucupibus ad fe ex uarijs mūdi plagis allata, curare poterit? et iã allata, quò mores ad plenum perueftiget, in uiuarijs & caueis fine maximis fumptibus alere quis fufficiet? Hoc

PERORATION TO THE READER.

THERE perhaps will not be wanting those who will attribute this to me as a fault, that this little book of mine contains within it many more conjectures than sure statements: to whom I reply, that it seemed to me much more prudent and becoming on a subject that is difficult and not yet sufficiently explored to tread doubtingly and modestly by conjecture, and so to enquire, than to pronounce rashly and immodestly on things undetermined. Moreover that I have written nothing here of the habits and medicinal nature of birds, I have for reasons the unsuitability of the time of year and its brief span (for the whole book was written in a space of less than two months) and a supply of money too slender to suffice for the perfection of a work of that kind. For who without great command of money can set off for distant regions, to observe the forms and habits of foreign birds, and there to stay a long time for that purpose? Who, hindered by his household or his calling or other business from going abroad could without vast expense give heed to all the kinds of birds brought to him by fowlers from the various quarters of the world? and when brought, who would be capable without vast expense of keeping them in vivaria and cages, that he might investigate their habits to the full?

Alexander ille omnium ethnicorum regum potentia, bellica gloria, & literarum studio maximus & nobilissimus secū animo perpendens, [p. 151] Aristotelem iam de animalibus scripturū, quem priuatis sumptibus negocium illud absolueri non potuisse cognouerat, ad conducendos aucupes, & uenatores, & ad alenda in uiuarijs animalia iam capta, 480 milibus coronatorum donauit, & ita instruxit. Talis si hodie alicubi Alexander existeret, non dubitarem quin nouus nobis Aristoteles alicunde renasceretur, qui prioris illius Aristotelis animalia omnia, paucis exceptis, nō solum nobis cum moribus medicis suis facultatibus, & huius tēporis nominibus exhiberet, sed & multa plura animalia quā prior, & humano generi non minū utilia nos doceret. Quod igitur Aristoteles de tam multis animantibus [p. 152] tā fœliciter scripserit, Alexātri potius liberalitati quā Aristotel. diligentē tribuendum erat: quamuis et ea summopere laudāda erat. Nam si Alexandri munificentia Aristoteli animalia illa spectanda nō exhibuisset, historiam animalium nobis tam absolutam nunquam ædidisset. Mirari igitur desinant scriptorū huius temporis ociosi cēfores, frigidius, indoctius, & minori cum diligentia stirpium, auium, piscium & quadrupedum historias hac ætate cōscribi, quā apud seculum prius tractabantur. Quum hodie quicquid præclari in lucem emittitur, priuatis tenuioris fortunæ studiosorū uirorum sumptibus & typographorum impensis edatur. Sed ad te iam redeo, candidissime lector, quem etiam atq; etiam ob [p. 153] testor, ut si qua tibi sese peregrina facie offerat

The well-known Alexander, the greatest and most renowned of all kings of the nations in power, war-like glory, and zeal for learning, weighing this in his mind, presented Aristotle with 480,000 crowns, when he was about to write on animals, since he knew that the philosopher could not carry out that task with his private means, for the purpose of hiring fowlers and hunters, and for keeping in vivaria the animals which had been already caught, and provided to that end. If such an Alexander existed anywhere to-day, I should not doubt that a new Aristotle would be born again for us from somewhere, who not only would display to us all the animals, with few exceptions, of that former Aristotle, with their habits, their medicinal properties, and their latter-day names, but would inform us of many more animals than the former, and those not less useful to the human race. That Aristotle therefore wrote so happily about so many living creatures is to be put down rather to the liberality of Alexander than to the diligence of Aristotle: though that too must be praised without stint. For if the bounty of Alexander had not supplied to Aristotle those animals to be examined, he never would have published so complete a History of Animals for us. Therefore let the ease-loving critics of the present day cease to wonder that the histories of plants, birds, fishes, and quadrupeds are written in this age with less spirit, less learning, and less diligence than that with which they were treated in a former age. To-day whatever of value is brought to light is published at the private expense of very zealous men of slender fortunes and printers. But now, I return to you, most ingenuous reader, and beseech you once and again that, if any bird of foreign aspect meet

avis, paucis mihi illam, addito nomine gentis tuæ,
depingere non dedigneris, & mihi & omnium
bonarū literarum studiosis fcies te magnopere
gratificaturum, nam nec facti in secunda huius
libri editione ero immemor, nec quicquã, quod ad
hoc disciplinæ genus pertinet,
mihi exploratum, te celabo.

Vale. Coloniae Calend.

Martijs.

your eye, you will not disdain to depict it for me in a few words, with the addition of the name of your family, and you will know that you will greatly gratify both me and those who are zealous of all good learning, for I shall be neither unmindful of the act in a second edition of this book, nor conceal from you anything, which pertains to this kind of teaching, and is found out by me.

Farewell. At Cullen. 1st March.

[p. 154]

ΑΛΒΕΡΤΟΣ Ὁ ΓΕΛΡΙΕΤΣ

τῷ τῆς βίβλου σπουδαίῳ ἀναγνώστῃ
ἐν πράττειν.

Ποίκιλα εἰ ἐθέλεις πτην' εἰδέναι ὦ φιλόμουσε
Τοῦτο ποίημα βραχὺ τάχ' ἀνάγνωσον ἄγε.
Ουδεὶς ἐστ' ἀκριβῶς περὶ τούτων γράψεν ἰατρῶν,
Ὡστε βλέπεις τῇ δ' ἐν πάντα γραφέντα βίβλω.
Τοῦ οὖν σπουδαίου Τουρνήρου τὸν πόνου οὔτου
Ἐπέλαβεν: τούτου καὶ ἀπόλαυε καλῶς.

Ἄλλο.

Φωνὰς μανθανέμεν πτηνῶν χιλίας ἀναγνώστᾳ
Βούλεις Τουρνήρου τὴν βίβλου ὠνέεο.
Τοῖα γὰρ οὐκ ἰατρῶν μηδεὶς πρὶν ἐγράψατο πάντων,
Ἐν βιβλίῳ τούτῳ, ποῖα δοθέντα βλέπεις.
Εἰ ἄρ' ἀβρῶς τε σαφῶς, τῆς γραφθείσης ἀπολαύειν
Βίβλου ἀνδάνει, κίνεε δεῦρο πόδον.

Aliud eiusdem ad candidum lectorem.

[p. 155]

*Accipe quæ docti medici tibi cura paravit
Turneri, notas quisquis auebis aues.
Has tibi tam uarijs manus ingeniosa figuris
Expressit, nosse ut quamlibet inde queas.
Ne quoque non posses has pernouisse, Latinas,
Anglas, Teutonicas, Argolicasq; facit.*

Liber ad lectorem.

*Quisquis aues uarias de nomine deq; figuris
Nosse cupis lector, me lege, doctus eris.
Nec dabo, crede mihi, tibi munera parua laboris:
Nam uolucrum res est maxima scire genus.*

Crebrò Grāmatici hęc hærēt, flāt κωφὰ πρόσωπα,
 Nec facit officio stultula turba satis.
 Hęc ipsos medicos errare miserrima res est,
 Quos decet hęc animis nota tenere suis.
 Seu Maro sit pueris, seu Naso poëta legendus,
 Seu fuerint quæuis scripta legenda tibi:
 Dispeream, si non multò tibi maximus error
 Occurret passim, ni bene nôris aues.
 Autorum nimiam placet haud posuisse cateruam.
 Vt tibi, quæ teneo, nostra probare queam.
 Plinius hęc ille est, & Aristoteles, reliquiq̃,
 Quotquot de uolucrum nos ratione docent.
 Hoc scio, Turneri miraberis ipse laborem,
 Doctrinam, summam cum pietate fidem.

[p. 156]

Αδηλον.

En tibi, quos docti dedit hęc pia cura labores
 Turneri medici, candide lector habe.
 Inuenies nimium quæ te didicisse iuuabit,
 Hinc uenient fructus in tua uota boni.

FINIS.

APPENDIX.

EXCERPTA EX OPERE IOANNIS CAII BRITANNI DE RARIORUM ANIMALIUM ATQUE STIRPIUM HISTORIA, fol. 17—23.

De Haliaeto.

De Auibus.

HALIAETOS, id genus aquilæ est, quod ex mari lacubusq; prædam quærit, vnde nomen inuenit. Is magnitudine Milui est, capite albis & fuscis distincto [f. 17 b] lineis, vt melino: rostro aquilino: oculis in medio nigris, in ambitu aureis: lingua ferè humana, nisi quòd ad radicem vtrinq; habet appendicem: colore per summa aëturis, per ima albo: gutture maculis notato ruffis vt & ventre, pectore medio pure candido: crure crasso & squamoso: pede vncungui & cæruleo: digitis quatuor, per superna ad dimidiam longitudinem etiam squamosis, ad reliquam incisus, per inferna asperis & aculeatis tenacitatis causa: & his tam validis, vt flexos vix vlla vi extendas. Prædator is est piscium, discussis decidentis corporis impetu aquis, ex eisq; viuut. Et quamuis ex pisce viuat, fidipes tamen est vtroque pede, non altero palmipes, vt vulgus putat. Giraldus Cambrensis libro de Topographia Hiberniæ, vbi de auibus biformibus agit, hunc Aurifrisiū vocat: & altero pede aperto & vnguibus armato esse, altero clauso cum vulgo scribit. Supra magnitudinem corporis alæ longitudo est, quæ ad pedes Romanos duos & digitos vndecim extenditur. Inoleuit opinio istic apud nostrum vulgus in Britannia, eam inesse vim naturalem huic aui, vt quem conspexerit piscem, eum se quàm mox resupinare & conuertere, atque ad sum-

APPENDIX.

EXTRACTS FROM THE WORK OF JOHN CAIUS
'DE RARIORUM ANIMALIUM ATQUE STIRPIUM
HISTORIA' (1570).

OF THE SEA EAGLE.

THE Haliaetos is that kind of Eagle, which seeks its prey from the sea and lakes, whence it takes its name. It is of the size of a Kite, having the head marked with white and dusky lines, as in a badger; an Eagle's beak; eyes black in the middle, golden in the outer circle; a tongue almost like that of man, except that at the root it has an appendage on either side; the colour above that of a Goshawk, white below; the throat marked with rufous spots, as is the belly; the middle of the breast pure white; the legs thick and scaly; the foot with curved claws and blue; four toes scaly above for quite half of their length, fissured for the rest, rough on the lower part and sharp for a firm hold; and these so strong that you can scarcely straighten them by any force when bent. This bird is a preyer upon fishes, the water being cleft by the shock of its body as it plunges, and on them it lives. And though it lives on fishes, yet it is cloven on each foot, not webbed on one as the vulgar think. Giraldus Cambrensis in his book on the Topography of Ireland, when he treats of unequally formed birds, calls this the Aurifrisius¹; and writes in common with the vulgar that it has one foot free-toed and armed with claws, the other closed (with webs). The length of the wing surpasses that of the body, for it extends to two Roman feet and eleven inches. In this affair an opinion has grown up among our common people in Britain, that such a natural power exists in this bird that any fish which it sees turns upwards on its back as soon as possible and rises to the surface

¹ Aurifrisius must be the Latinized form of the old French name 'Orfraie'—which, like Osprey, is a corruption of *Ossifraga*.

mam aquam. ascendere, in eaque fluitare vt fopitum, quo facilior præda fit volanti. Ideoq; eius adeps studiosius afferuatur à nostris piscatoribus, quòd eandem vim habere creditur. Frequentes sunt apud nos in maritimis locis & Vecti insula. Nostri an Osprey vocant. Moribus placidus est & tractabilis, & famis [f. 18] patientissimus. Vixit enim septem dies apud me sine cibo, & in alta quiete: nisi si hoc non mos fecit sed fames, quæ omnia domat. Carnem oblatam recusauit: piscem non obtuli, quòd eum ex hoc viuere didici. Caro illi nigra est.

De anserè Brendino.

Anser Brendinus, auis est marina, palmipes, figura anseris, sed magnitudine paulo infra, capite albo exiguo & curto, sed rostro nigro, à quo linea nigra ad oculum vtrumque ducitur, collo fusco, à pectore ad caudam ex dimidio corpore inferiori albo, coxendice murino (vt est Columbæ vulgaris color aut gruis) ex superiori, ad collum fusco, vt & ad caudam medio inter vtrumq; murino: alis item murinis, cum cauda longitudine paribus, sed pennis ad extremum obfuscatis. Cauda nigra est ex albo enata, pede nigro & palmato. Gregalis auis est & garrula. Ex pisce viuunt, frequens apud nos per littora in Britannia. Vulgus Britannorum quod ad littus habitat à coloris varietate a Brendgose nominat. Ornithopolæ Londinenses Bernaclum vocant, cum dicendum putem Berndclacum seu Brendclacum, quòd antiqui Britanni atque item Scoti, anseres marinos, palustres & lacustres omnes Clakes dicebant, cum tamen hodie corruptè dicimus Fenlakes & Fenlagges, cum dicendum fuit Fenclakes. Varium item colorem, Brend, seu per metathesim Bernd ijdem appellabant. Vnde [f. 18 b] bernded seu bredned id animal dicitur, quod in colore murino variegatum est albo, vt est hic anser. Non est

of the water, and therein floats as if stunned, in order that it may more readily become a prey to the winged creature. And therefore is its fat preserved with greater keenness by our fishermen because it is believed to have the same virtue. They are abundant with us on sea-coasts and in the Isle of Wight. Our people call it an Osprey. In its habits it is quiet and amenable, and most patient of hunger. For it has lived with me for seven days without food, in deep repose; unless indeed it was not habit that caused this, but hunger, which tames all things. It refused flesh when offered to it; I did not offer fish, because I understood that it lived on it. Its flesh is dark.

OF THE BRENT GOOSE.

The Brent Goose is a web-footed sea-bird, of the appearance of a Goose, but a little less in size, with the head small and short and white, but the beak black, from which a black line reaches to either eye; the neck dusky, the lower half of the body from the breast to the tail white; the flank mouse-coloured above (like the colour of a common Pigeon or Crane), dusky towards the neck, and also the intermediate parts towards the tail mouse-coloured; the wings also mouse-coloured, equal in length to the tail, but with the feathers darkened at the tip. The tail is black from a white base, the foot black and webbed. It is a gregarious and noisy bird. It lives on fish, and is common with us in Britain about the coasts. The common people of the Britons who live on the coast, name it a Brendgose from the varied nature of its colouring. The London bird-dealers call it Bernacle, yet I should think that it ought to be named Berndclac or Brendclac, because the Britons of old, as also the Scots, called all the Geese whether of the sea, marshes or lakes "Clakes," though at the present day we corruptly say Fenlakes and Fenlagges¹, when we should say Fenclakes. The same people, moreover, call anything variegated Brend or by metathesis Bernd. Whence an animal is said to be bernded or breded which is variegated with white upon a mouse-coloured ground², like this Goose. It is not, there-

¹ According to this notion 'Grey-Lag' would be for 'Grey-Clak.'

² Possibly, then, 'Bergander' is for 'Bernd-gander.'

Anser
Bassanus.

ergo Scotorum Bassanus anser, qui in Basse Scotorum Infula nidum ponit atq; oua, à qua nomen habet. In hanc infulā rupem existentem, nec in fummo quantam Miluus oberret (vt Poëta dixit) sed exiguam, venturi flato anni tempore anseres, quo prius speculatu, qua obferuatione præmiffis nuntijs vtantur quàm ingrediuntur: quo anni tempore hoc faciant, qua folitudine infulæ, concludentibus fe incolis ad aliquot dies, donec fe firmauerint anseres, ne abigant, quanta multitudine atq; densitate inuolent, fic vt in serenitate solem adimant, quot pisces afferant, quot oua pariant, & quantos fructus in annos ex eis anserumq; plumis atq; oleo percipiant infulani (nam Pupinorum pinguedinem habent atq; gustū) longum effet recensere.

De Anate Indica.

Est apud nos ex India anas, eadem planè corporis figura, eodem rostro & pede quo vulgaris, sed ex dimidio maior ea & grauior. Caput illi rubescit vt fanguis, & bona pars coniuncti colli à posteriore parte. Id totum callosa caro est, & incisuris distincta: quaq; ad nares finit, carunculam demittit à reliqua carne figura separatam, qualis cygnis est, rostro coniunctam. Nudum plumis caput est, & ea quoque colli pars quæ rubescit, nisi quòd in summo capite crista est plumea atque candida, per totam capitis longitudinem protensa: quam, cum excandescit, erigit. Sub oculis ad rostri initium præ inferna, inordinatæ maculæ nigrae carni sunt inductæ: & vna atq; altera à summo oculo ad superna eleuatæ. Oculus flauescit, separatus à reliquo capite circulo nigro. Sub extremo oculo in auersum macula est singularis, separata à cæteris. Rostrum totum est cœruleum, nisi quòd in extremo macula nigrescit vna. Pluma illi per totum colli processum reliquum, alba. Qua corpori collum iungitur, circulus est plumeus niger, rara pluma alba, maculosus & inæqualis, per ima angustior, per summa lator. Post eum per totum imum ventrem pluma

fore, the Bass Goose of the Scots, which has its nest and eggs on the Bass, a Scottish Isle, and thence takes its name. Now when at a certain season of the year the Geese are about to return to this precipitous island rock—not so big on the top as a Kite could hover over (as the Poet has said), but very small—it would be too long to recount what spying, what circumspection (scouts having been sent ahead) they use before they alight: at what time of year they do this, the solitary state of the isle, when the inhabitants shut themselves up for several days, until the Geese have settled down, lest they should drive them off, in what numbers and in what a throng they fly to it, so that in clear weather they obscure the sun, how many fishes they bring home, how many eggs they lay, and what profit the dwellers in the isle make annually from the feathers and the oil of these Geese (for they possess the fatness and the taste of Pupins).

OF THE INDIAN DUCK.

There is among us, a Duck from India, with exactly the same form of body, the same beak and foot as the common bird, but bigger by half and heavier. Its head is red as blood, as is a good part of the adjoining neck behind. The whole of this is callous flesh and marked with fissures: and where it ends at the nostrils it makes a caruncle like that in Swans, separated in form from the rest of the flesh, which joins the beak. The head and red part of the neck are devoid of feathers, save that on the top of the head is a white feathery crest, extending over the whole length of the head; and this the bird erects, when it is excited. Under the eyes to the beginning of the beak at its lower part irregular black spots are arranged on the flesh: and one or two reach upward from the top of the eye to the parts above. The eye is yellowish, being separated by a black ring from the rest of the head. Close behind the eye is a solitary mark, apart from the rest. The whole beak is blue save that at the tip one spot shews black. The plumage over all the rest of the neck is white. Where the neck joins the body, there is a ring of black feathers spotted and irregular—with an occasional white one—narrower below, broader above. Behind this the plumage is white over the whole of the belly below:

alba est: per summum corpus, fusca, sed ab circulo illo nigro pluma alba in fummo diuisa. Extremæ alæ atque cauda cum splendore virescunt, vt Cantharides. Tibiarum cutis fusca est, incifuris leuibus per circuitus ducta. Membrana per interualla digitorum pedis pallefcit magis, vna atque altera resperfa macula fusca, incerta lege disposita, nisi in interuallo finiftri pedis, vbi sex per digiti extremi longitudinẽ disponuntur. Tardo gradu incedit propter corporis grauitatem. Vox illi non qualis ceteris anatibus, sed rauca, qualis faucibus humanis catarrho obfefsus. Mas maior est quàm fœmina. Ea fimilis mari est, nisi quòd non ita variegato corporis colore est. Viuit ex cœnosis aquis, & alijs quibus cetera vulgaris anas gaudet.

[f. 19 b]

De Anate Turcica siue Indica altera.

Anati quidem fimilis est quæ Turcica siue Indica dicitur, sed quantitate & magnitudine corporis anserem ferè diceres. Tota est candida, nisi quòd rostrum, tibiæ, atque pedes rubent, genæq; item callosa carne, & rostri tuber supra nares. Caro illi dulcis est, & vox fibilus. Sunt eius generis quædam, colore albo & nigro variegatæ. In aqua viuit, locisq; gaudet cœnosis vt ceteræ anates.

De Pica marina.

Pica marina (vt nostrum vulgus nominat) paulo maior est terrestri, coloris quidem varietate in corpore fimilis, sed colore pedis, digitorum numero, incifuris, cauda atque rostro admodum dissimilis. Nam pes rubet, & digito posteriori destituitur, nec incifuras habet is & tibia, sed impresiones quafdã, piscium squamis quàm fimillimas. Fiffus est, sed ita in digitis vtrinq; luxuriat cutis, quemadmodũ in fulicis penè, vt ad natandũ quoque pes factus videatur. Auis est Amphibios. Caudam curtam habet, rostrum longum atq; tenue, perpendiculariter latum, non teres, colore

and dusky over the upper surface of the body, but the white feathering above is divided by the black ring. The ends of the wings and the tail have a greenish gloss as in *Cantharides*. The skin of the legs is dusky, marked all round with slight fissures. The web in the spaces between the toes is paler, marked now and again with a dusky spot, arranged in no precise plan, except in those of the left foot, where six are distributed over the length of the outer toe. The bird moves with slow step on account of the weight of its body. Its voice is not like that of other Ducks, but hoarse; such (as comes) from the human throat when attacked by a catarrh. The male is larger than the female. She is like the male, save that she has not so varied a colouring of body. The bird gets its living from muddy waters, and those others wherein the other common Duck delights.

OF THE TURKISH OR SECOND INDIAN DUCK.

That which is called the Turkish or Indian is like a Duck, but (judging) from the bulk and bigness of its body you would almost call it a Goose. It is entirely white, except that the beak, legs and feet are red, while the cheeks also have callous skin, and there is a protuberance on the beak above the nostrils. Its flesh is sweet, and its voice whistling. There are some of this kind variegated with black and white. It lives upon the water, and delights in muddy places, as do other Ducks.

OF THE SEA PIE.

The Sea Pie (as our common people call it) is a little larger than the land Pie, yet like it in the varied colour of its body, while very dissimilar in the colour of the foot, the number of toes, their scutellations, the tail and the beak. For the foot is red and lacks a hind toe, nor has that member or the tibia scutellations, but merely marks, as like as may be to the scales of fishes. It is cloven-footed, but there is such an extent of skin on the toes on each side—almost as much as in *Coots*—that the foot would even seem to be formed for swimming. It is an amphibious bird. It has a short tail, a beak long and thin, vertically broad, not smooth, in colour

in summo ad caput rubrum, per reliquum pallidum, nec est in fine acutum, sed obtusum id. In mensa grata avis est.

De gallina Getula domestica.

Gallina Getula domestica, paulo minor nostra est, [f. 20] colore in supernis obscurè ruffa, in infernis pallida, pluma capitis incomposita & erecta, crista ferrata, humili, simplici, carnea: gutturosa magis perpetuò, quàm nostræ cum gloriunt: tibijs pedibusque plumosis, maximè per exteriora & posteriora vt columbis, ne per interiores plumas gressus impedirentur: cetera vt vulgaris.

De Meleagride.

Meleagris pulcherrima avis est, magnitudine corporis, figura, rostro, & pede Phasiano similis: vertice corneo, in apicem corneum à posteriori parte precipitem, in anteriori leniter acclivem eleuato, armatus. Eum natura voluisse videtur inferiori capitis parti tribus. veluti lacinijs se promittentibus committere atque deligare: inter oculum & aurem vtrinque vna, & in fronte media item vna: omnibus eiusdem cum vertice coloris: ita vt insideat capiti eo modo, quo ducalis pileus illustrissimo duci Veneto, si quod iam aduersum est, auersum fieret. Rugosus is est: inferius, per circuitum: qua se attolit, in directum. In summo collo ad occipitium nascuntur erecti quidam atque nigri pili (non plumæ) in contrarium versi. Oculi toti nigri, æquè & in orbem palpebræ atque cilia, si maculam in summa & posteriori parte supercilij vtriusque demas. Imum caput per longitudinem vtrinque caro quædam callosa colore sanguineo occupat, quæ ne propendeat veluti Galli gallinacei palea¹, vt [f. 20 b] replicaretur natura voluit, & auerso ductu in duos processus acutos à capite liberos finiret. Ex hac carne attollunt se vtrinque carunculæ, quibus nares in ambitu vestiuntur, & caput in anteriori parte à cetero rostro pallido separatur. Harum ad rostrum margines inferiores, replicantur etiam leuiter sub vtroque nare.

¹ Possibly 'palea' is a misprint for 'galea,' comb.

red on the top near the head, pale on the remainder, nor is it sharp at the end, but blunt. It is an acceptable bird for the table.

OF THE DOMESTIC GETULIAN HEN.

The domestic Getulian Hen, is a little smaller than our own, in colour dull rufous above, pale below, with an erect crest of disintegrated feathers on the head, a serrated comb, low, simple and fleshy: more continuously noisy than ours are, when they cluck: with the legs and feet feathered, for the most part outwardly and behind as in Doves, that the progress should not be hindered by feathers on the inside, otherwise it is like the common kind.

OF THE MELEAGRIS.

The Meleagris is a very beautiful bird, like to a Pheasant in bigness of body, form, beak and foot: provided with a horny poll rising to an abrupt horny peak at the back, which slopes down gently in front. Nature seems to have designed to join and bind this to the lower part of the head by three hanging lappets as it were; one on each side between the eye and the ear, and also one on the middle of the forehead, all of the same colour as the poll, so that it sits on the head in the same way that the ducal cap does on that of the most noble Duke of Venice, if that part which is usually in front be turned behind. It is wrinkled round about below, but vertically where it rises above. From the top of the neck to the occiput spring certain erect black bristles (not feathers), turned backwards. The eyes are wholly black, and equally so are the eyelids and eyelashes around them, if you except a mark on the top and back of each eyebrow. A kind of callous flesh of a blood-red colour covers the lower part of the head along its length; nature has designed that it should be folded, and should not hang forward like the wattle of the Fowl, and being led backward end in two acute processes free from the head. From this flesh rise on either side caruncles, by which the nostrils are clothed round about, and by which the head is divided in front from the rest of the pale-coloured beak. The lower edges of these by the beak are also folded slightly under each nostril. What intervenes

Quod inter verticem & carnem est à dextra & sinistra parte, album deplume est, leui cœruleo mixtum. Color verticis atque apicis, idem prorsus est cū colore dactyli. Tibiæ nigræ sunt, & in anteriori parte, squamosa incisura duplici notatæ: in posteriori nulla, sed leues, & veluti punctis quibusdam sui coloris resperfæ. Color illi sub faucibus exquisitè est purpureus: in collo obscurè purpureus: in cetero corpore per summa contuenti, qualis confurgit si album & nigrum pollinem vtcunque tenuiter tritum, colori fusco rarius aspergas, nec tamen commisceas. Tali colori maculæ albæ ouales aut rotundæ per totum corpus inesse visuntur, per summa minores, per ima maiores, comprehensæ interuallis linearum (vt. apparet in plumarum compositione naturali) quæ se mutuo interfecant obliquo hinc inde ductu, per summa tantum corporis, non item per ima. Id non ex toto corpore solum deprehendes, sed ex singulis auulsiis plumis. Superiores enim, obliquis lineis se mutuo interfecantibus, aut, si mauis, orbiculis quibusdam ex albo & nigro (vt dixi) polline confectis, & per extremitates coniunctis, vt in fauis aut rhetibus, maculas ouales aut

[f. 21] rotundas albas in spacijs fuscis comprehendunt: inferiores non item. Vtręq; tamen simili lege positæ sunt. Nam in alijs plumis, ordine ita iunctæ sunt, vt ferè triangulos acutos faciant: in alijs, vt oualem figurã representent. Huius generis ordines tres aut quatuor in singulis suis plumis sunt, ita vt minores in maiorũ complexu reponantur. In extremis alis & in cauda, rectis lineis equidistantibus procedunt per longitudinem maculæ. Inter gallum & gallinam vix discernes, tanta est similitudo, nisi quòd gallinæ caput totum nigrum est. Vox illi est diuisus sibilus, non sonorior, non maior voce coturnicis, sed similiar vocis perdicis, nisi quòd submissior ea est, nec ita clara. Cursu velox est.

De Morinello.

Morinellus, auis nobis cum Morinis communis, fulta admodum est, sed in cibis delicata, eoq̃ue apud

between the poll and the flesh on the right and left is white and unfeathered, mixed with light blue. The colour of the poll and peak of the head is exactly the same as that of the toes. The legs are black, marked in front with a double scaly fissure, on the back with none, but smooth, and sprinkled as it were with some spots, of a peculiar colour. The colour below the jaws is exquisite purple; on the neck dark purple; on the rest of the body, if you look from above, it stands out as if you sprinkled black and white flour, ground very fine with dusky colour at intervals, and yet did not mix them up. On such a ground oval or round white spots seem to be imposed throughout the whole body, smaller above and larger below, arranged in lines at intervals (as appears in the natural structure of feathers) which cut one another here and there in reciprocal oblique arrangement, only on the top of the body, however, and not below. This you will observe not only from the body as a whole, but from individual feathers if plucked out. For the upper feathers, with their oblique lines cutting one another reciprocally, or, if you will it, with certain rounds composed of black and white flour (as I have said), and meeting towards the tips, as in honey-combs or nets, enclose oval or round white spots within dusky spaces: but the lower do not. Both, however, are arranged by a similar law, for on some feathers they are so joined in rows as to almost make acute triangles; in others so as to present an oval form. Of this kind there are three or four rows on each feather, so that the smaller are contained in the compass of the larger. At the tips of the wings and on the tail, spots lie along the length in equidistant straight lines. You can hardly distinguish between the cock and the hen, so great is the likeness, save that the head of the hen is wholly black. The voice is a shrill double cry, not more sonorous or louder than that of the Quail, but like that of the Partridge, except that the latter is lower, and not so clear. In running it is swift.

OF THE MORINELLUS.

The Morinellus, a bird common to us and the Morini¹, is very foolish, but delicate to eat, and on that account is a

¹ The people of a district in Northern France.

nos in summis delitijs atque pretio est. Imitatrix auis est. Ideo, vt Scops & Otus faltandi imitatione, ita hæc noctu ad lumen candelæ pro capientis gestu capitur. Nam si is expandit brachium, extendit & illa alam: si is tibiam, & illa itidem. Breuiter quicquid gerit auceps, idem facit & ales. Ita humanis gestibus intenta auis, ab aucipe decipitur, & rhete obuelatur. Auis parua est, magnitudine Sturni, tribus tantum digitis anterioribus, posteriori nullo, vertice nigro, genis candidis, coturnicis ferè colore, si cinericei [f. 21 b] parum admisceas, potissimum circa collum. Morinellum voco duplici de causa, & quòd auis est apud Morinos frequētissima, & quòd auis stolidia est, quæ stultitia græcis *μωρότης* dicitur. Eam ob rem nostri etiam Doterellū vocant, quasi stultitia delirantem dicant.

De Puphino siue Pupino.

Est auis quædam marina nostras, parui anatis (quàm *βόσκαδα* Græci vocant) magnitudine & figura corporis, pedibus palmatis & rubescentibus, ad posteriora magis positus quàm ceteris palmipedibus exceptis pygoscelibus: rostro tenuiore magis latitudine se demittente, quàm longiore processu se extendente, quatuor incisuris rubris à summa, duabus ab ima parte fulcato, in colore pallentis ochræ. Quod inter has & caput est, subcœruleum est, & ea figura qua luna est, cum exacti dies decem sunt à coitu. Per summa corporis totius nigrescit, nisi qua oculi sunt, qui in albo constituti sunt: per ima exalbescit tota, nisi summo pectore, qua nigricat. Viuit ex mari. Hunc nostri Puphinum dicunt, nos Pupinum à naturali voce pupin. Latitat in cauernis, vt charadrius. Eam ob remeducta è cuniculi cauea auis hæc est, loco non procul à mari posito, à venatore quodam immissa viuerra. In piscis vsu apud nos est in solenni ieiunio per [f. 22] quadragesimam: carne & gustu, Phocæ marinæ haud dissimilis. Gregale animal est, & sua habet latitandi tempora, vt Cuculus & Hyrundo. Oua parit in terræ

very great luxury with us, and of great price. It is a mimic. And so, as the Scops and Otus are taken by an imitation of dancing, this bird is caught at night by the light of a candle according to the motion of the captor. For if he stretches out an arm, the bird lifts a wing; if he stretches out a leg, it does likewise. In short, whatever part the fowler plays, the bird does the same. So being intent on the man's actions, it is fooled by the bird-catcher and caught in his net. It is a little bird, of the size of a Starling, with only three fore-toes and no hind-toe, a black crown, white cheeks, and colour almost that of a Quail, if you were to mix with it a little ash-colour, especially round the neck. I call it *Morinellus* for a double reason, both because it is a bird most abundant among the Morini, and because it is a foolish bird, foolishness being by the Greeks called *μωρότης*. On this account our people also call it *Doterell*, as if they were to say doating with folly.

OF THE PUPHIN OR PUPIN.

There is a certain sea-bird of our country, in size and form of body like a little Duck (which the Greeks call *βόσκας*), with webbed and reddish feet, placed nearer to the hinder parts than in other web-footed kinds except the *Pygosceles*: with a somewhat thin beak, rather more extended in breadth vertically than stretching laterally to a very great length, furrowed by four red grooves above, and two below, pale ochre in colour. The part lying between these and the head is bluish, and of such a shape as is the moon, when ten days have elapsed from conjunction. The bird is black on the upper surface of the whole body, save where the eyes are set, which are enclosed in white: but it is wholly white below, save on the upper breast, where it is black. It gets its living from the sea. This bird our people call the Puphin, we say Pupin from its ordinary cry of "pupin." It hides in holes, as the *Charadrius* does. And so it is driven out from a rabbit's burrow by a ferret turned in by any hunter in a place situated not far from the sea. It is used as fish among us during the solemn fast of Lent: being in substance and taste not unlike a Seal. It is a gregarious animal, and has its proper time for lying hidden, as the Cuckoo and Swallow.

cuniculis bina magna ex parte. Alis non confidit nisi conspecto mari. Pigrum videtur animal, sed iniurię patiens. Vescitur carne lubentius quàm pisce, & cuniculi quàm alterius animalis, sed vtroque crudo: cocta & affa respuit. Cętera non attingit humana ędulia. Aestate se lauat, sed nunquam, quod obseruatione deprehendi potest, bibit: an quòd aqua marina carebat, nescio. Excrementum alui illi est quale accipitri. Cum non effet quod ederet, cibum voce naturali geminata & summissa, pupin, pupin clamitando, implorabat. Alebam domi meę ad menses octo. Mordebat lubenter minifrantes cibum, aut attingentes, sed benignius atque innocentius. Exiguo cibo fatiatur. Non enim vorax auis est vt Coruorans noster, quem tu (Gesnere charissime) coruum aquaticum & mergum recte nominas, nostri Cormorantem corruptę dicunt, nescientes ex vocis ętymo coruum vorantem appellari debere. Quod naturaliter facit, cum illi à natura vnicum tantum intestinum sine elice (vt aiunt) rectum sit concessum, propter vehementiam caloris naturalis, citissimè absumentis quę assumuntur omnia.

*Coruorans
seu Mergus.*

De Spermologo seu Frugilega.

Spermologus noster à cornice nigra nulla in re differt, nisi morū innocentia, *προλόβω* seu ingluuie, [f. 22 b] qua granum legendo continet, vt ad suos referat: (est enim gutturofus) albo callo, qui in summo rostro est ad caput: & voce, quam habet gutturalem & raucam. Vnde forsā nostris, quibus nomina rerum multa Latina sunt & Gręca (vti libro nostro de symphonia vocum Britannicarum diximus) rouce dicitur, quasi rauce Anglis, raucus Latinis sit dicendus: victu quoque à coruo differt, quòd frumento, hordeo, & cętero semine (vnde nomen *σπερμολόγου* inuenit apud Gręcos) vescitur. Vescitur & vermibus, vbi frugis frumentiq; copia non est. Hinc rustici nostri dubitant

It lays for the most part two eggs in rabbit burrows in the earth. It does not trust to its wings save in sight of the sea. It seems a lazy animal, but patient of injury. It eats flesh more readily than fish, and that of a rabbit in preference to that of any other animal, but in either case raw: it throws up what is boiled or roasted. Other human victuals it does not touch. In summer it washes itself but never drinks, so far as can be ascertained by observation; whether this was because salt water was wanting, I know not. The droppings are like those of an Accipiter. When there was nothing to eat it begged for food with its ordinary cry repeated and lowered, by calling out "pupin, pupin." I kept one at my house for eight months. It bit with right good will those who supplied it with food or touched it, but in a mild and harmless way. It was satisfied with little food. For it is not a voracious bird, as our Corvorant is, which you (dearest Gesner) rightly name *Corvus aquaticus* and *Mergus*, while our people corruptly say Cormorant, not knowing from the derivation of the word that it ought to be called the Crow that devours. And this it does naturally, since it is endowed by nature with only one intestine straight and without a coil (as they say), on account of the vehemence of the natural heat, which very quickly consumes all that it swallows.

OF THE SPERMOLOGUS OR FRUGILEGA.

Our Spermologus differs in nothing from a black Crow, save in the harmlessness of its habits, in the *προλόβος* or crop, which holds the grain as it is picked up, that it may bear it to its young (for it is pouched): in the white callus, which extends from the base of the beak to the head; and in its voice, which is guttural and harsh. Whence possibly by our people, among whom there exist many Latin and Greek names for things (as we have said in our book on the Harmony of British words) it is called Rouke, as if it should be called Rauce by the English and Raucus by the Latins: also in food it differs from the Crow in that it eats wheat, barley, and other seeds (whence it got the name of *σπερμολόγος* among the Greeks. It also eats worms, when there is not plenty of corn or grain. Hence our country people doubt

maior ne fit ex eis vtilitas agris dum legunt vermen, frugis & fementis pestem, an inutilitas hominibus dum vorant granum, hominis nutrimentum. Tanta tamen multitudo est, vt legibus condemnentur: innocens alioqui auis atq; vtilis. Agricolis enim teneri adhuc ex nido, in cibo sunt. Non nisi excelsis arboribus, idq; societate quadam numeroq; nidificant, cohabitant, & confidunt.

De Sacropsittaco.

Pfittacorum plura esse genera obseruau. Quidam enim pusilli, magnitudine videlicet turdi, toto quidem corpore virides sunt, sed caudam longam atque gracilem, & eam aut flauam, viridem, aut puniceam habent. Quidam¹ rufum grandes sunt admodum, cornicis magnitudine, ex toto punicei seu rubri, nisi sub imo ventre, [f. 23] extremis alis, & extima cauda, quibus partibus cum cœruleo virefcunt. His rostrum est magnū, cauum, pellucidum, & aduncum, medio tantum sui pallidum, vtroque extremo ex parte nigrum, vt & inferior maxilla tota nigra, cuius cauitatem lingua dura & nigra ceterorum Pfittacorum modo & forma occupat. Vtrinque genæ, in cute rugosa, figura ferè triangulari obtusa, candicant, rubris mollium pennarum ordinibus equidistanti parallelo inductis, & alicubi etiam sine ordine. Oculus paruus, & in albo cilio cuticulari constitutus, pupillam habet nigram, quam circumdat aureus circulus. Digtos habet quatuor ita efformatos, vt videatur natura voluisse omnes anteriores fecisse, retorsisse tamen duos in auersum firmandi corporis causa. Hos Brasilia mittit, quos propter insignem magnitudinem Sacropsittacos nominamus. Veteres enim quod præclarum magnumque erat, sacrum dicebant. Vt sacrum os, sacram anchoram, sacrum falconem, quem hierofalconem dicunt, sacrum piscem, *ἱερὸν μένος*, sacram famem, & sacrum morbum. Huius generis imaginem quam à nobis accepisti, subiunge. Ceteros inter hos magnitudine medios, aliæ regiones, vt insula Hispania, Aegyptus, & India ferunt, sed colore vario. Alij enim toto corpore cinereo, caudas habent fultas, breuiores & puniceas,

Sacrum.

¹ A misprint for Quidam.

whether their utility is greater in the fields, when they pick up the vermin, destructive to crops and seeds, or their harmfulness to men, when they devour grain, the food of man. However the number of them is so great, that they are condemned by the laws; harmless and useful birds in other respects. For, when still tender from the nest, they are used as food by country men. Only in lofty trees, and that as it were, in company and in numbers do they nest, abide and roost.

OF THE SACROPSITTACUS.

I have observed that there are many kinds of Parrots. For some that are small, namely of the size of a Thrush, have the whole body quite green, but the tail, which is long and slender, either yellow, green, or crimson. Again some are very large, of the size of a Crow, altogether crimson or red, except under the lower belly, on the ends of the wings, and on the tip of the tail, on which parts they shew greenish blue. These have a large beak, hollow, shining and hooked, pale only in its middle, partly black at each end, while the lower jaw is entirely black, the cavity being filled by the tongue, which is hard and black of the style and shape of that of other Parrots. The cheeks on both sides are whitish on the wrinkled skin, in shape almost obtusely triangular, the rows of soft red feathers being set in equidistant parallel lines, though in some places also without being in rows. The eye, small and set in a white ring of skin, has a black pupil, which is surrounded by a golden circle. It has four toes fashioned in such a way that nature seems to have intended to place all of them in front, but to have turned two of them back for the sake of supporting the body. Brasil sends us these birds, which we call *Sacropsittaci* on account of their remarkable size. For the ancients used to call that *Sacrum*, which was notable and large. As the *os sacrum*, *anchora sacra*, *falco sacer*—which they call *Hierofalco*, *piscis sacer*, *ἱερὸν μένος*, *fames sacra*, and *morbus sacer*. Compare with these the picture of this kind, which you have received from us. Other regions, as the Spanish Isle, Egypt and India, produce other kinds which are midway in size, but with various colouring. For some with the whole body grey have strong tails, some-

in extremoꝛque lunares. Alij ex toto virides funt. Alij cum corpore vireant, cauda longa flauescunt. [f. 23 b] Mores habent omnes fimiles, & victum communem. nisi quòd Sacropsittacus, pane bera macerato, carne, & pisce etiam vescatur.

De Coruis albis.

Anno domini. 1548. Augusto mense, coruos duos candidos ex eodem nido vidi & contrectaui istic in Cumbria nostræ Britanniaë, apud eiusdem prouinciaë comitem natiuos, atque ita ad aucupium factos vt accipitres. Nam & brachio falconarij quietè insidere, & soluti ad eius vocem atque signum vel è longinquo quàm celerrimè aduolare docti erant. Hos nihil est infaustum cõsequutũ, vt albas illas hirundines, de quibus Alexander Myndius apud Ælianũ. Nam qui coruũ album notat, colorem notat: vt qui vrfum album & vulpem nigram: quorum vtrumque vidimus ex Moscouia istic in Britannia. Q̃tanquam vulpem nigram non queo dicere, etsi vulgus nigram vocet: sed potius fuscã, aut obscurè griseã reliquo corpore. Nam genas atque tibias tantum fuscas habet, clunes atque caudam.

Vrfus albus.
Vulpes nigra.

Expletis iam quæ de volatilibus ad te scripsi mi Gesnere, suo ordine pisces consequuntur.

what short and crimson, and crescent-shaped at the tip. Others are entirely green. Others, though they are green on the body, are yellowish on the long tail. All have like habits, and the same kind of food, save that the *Sacropsittacus* eats bread soaked in beer, flesh, and even fish.

OF WHITE RAVENS.

In the year 1548, in the month of August, I saw two white Ravens from the same nest, and handled them at the very place in Cumberland of our Britain, bred on the property of a lord of that county, and trained for bird-catching just like hawks. For they had been taught both to sit quietly on the arm of the falconer, and when loosed to fly as quickly as possible to his call and sign even from a distance. Nothing unlucky followed them, as in the case of those white Swallows, about which Alexander Myndius wrote according to Ælian. For he who notes a white Raven notes the colour; as he does who notes a white Bear and a black Fox; both of which I have seen here in Britain from Muscovy. Yet I can hardly call a Fox black, although the common people call it black; but rather dusky or dull grey on the rest of the body. For it has only the cheeks and the legs, with the rump and the tail, dusky.

And now those things being finished which I have written to you of flying creatures, my Gesner, the fishes follow in due order.

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