

pepysian.

Index, non-aerial behavior in the wild,
1955

Alarm Posture Description & sketch, folded crest and horizontal line across face, Jun 7, I.

Ruffle As a comfort movement, reaction to heat, Jun. 13, I, II.

LCN "Kee-nit" type notes, description & discussion; Jun. 12, I, II;

Jun. 13, II. LCN's of slightly PCC type, from glib posture, with R; Jun. 5, I

Ground "PCC". Description; Jun. 7, I, Jun. 12, I, II. In typical glib posture; Jun. 13, I. Toward newly hatched chick, Jun. 13, II. General discussion function, Jun. 7, II.

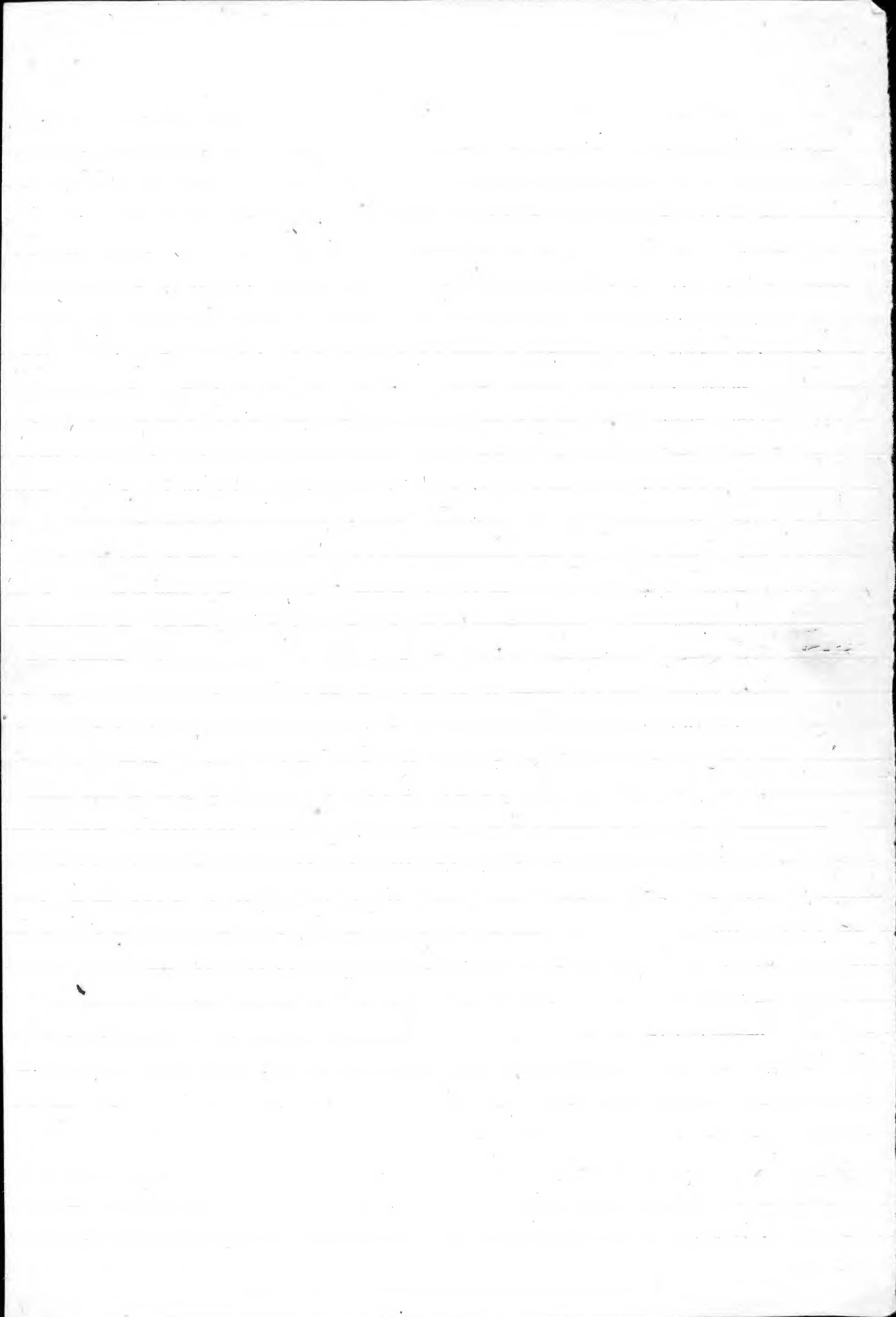
Oblique Posture Description, Jun. 5, II. Low intensity O's with LCN's, Jun. 5, III

Complete Long Call. Description, Jun. 5, II. With T note but without T movement, Jun. 5, III.

Tossing Sketch, Jun. 5, II.

Gabbering Description sound, Jun. 5, II. Accompanying movements, Jun. 5, II. With extreme crest-raising, sketch, Jun. 5, I. Low intensity forms; Jun. 5, II, Jun. 7, II, Jun. 13, II. Comment on function(?), Jun. 7, II

Mew Call Feeding of newly-hatched chick without trace of M, Jun. 13, I.



AERIAL BEHAVIOR.

1. General. May 8, II; May 9, III.
2. Alarm. Note: May 8, II. Posture: May 8, II.
3. Landing Call. May 18, III, IV, V.
4. Long Call Note. Note: May 8, II, III; June 9, I, II. Posture: May 8, II.
5. Glide. Call: May 12, I; May 15, II; May 18, IV, V; May 19, II; May 29, III.
Posture: May 11, II; May 12, I; May 19, II; May 31, IV.
6. Plaintive Charge Call in ordinary flight. May 19, I; May 29, IV.
7. Charge, Swoop, and Soar. May 18, I, II, III; May 19, I; May 20, VI; May 24, II; May 25, I; May 29, IV, V; May 30, I, II, III; May 31, IV; June 4, I; June 9, II; June 13, IV.
8. Pursuits. (See also Charge, Swoop, and Soar). May 15, II; May 18, III, IV; May 19, I; May 20, I, VI.
9. Gakking. June 7, III.
10. Swoop, Rise, and Hover. May 20, II; May 24, IV; May 25, II, IV; May 31, IV. Alternate Plaintive and Gakking: June 1, I, II, III, IV; June 9, II. With variant of Plaintive: June 9, I.
11. Series of increasingly aggressive calls. June 9, II.
12. Fighting. Postures: May 24, IV.

NON-AERIAL HOSTILITY.

1. Alarm Posture. Drawing: June 4, I.
2. Alarm Call. In Upright: May 18, I; June 9, III. In the Low Oblique: May 25, IV; May 31, IV.
3. Uprights. Comment: May 25, IV. Sketch and description: May 20, II; May 30, I, III, IV; June 1, I; June 4, III; July 10, II. With Alarm Call: May 17, I; June 9, III. With the Plaintive Charge Call: May 24, IV; May 31, IV. With the Gakkering Call: May 29, V.
4. Head-flagging. May 12, II; July 10, III.
5. Long Call Note. May 24, III; May 25, III; June 4, III; June 14, I.
6. Long Call. Description: June 9, I; July 10, II.
7. Oblique. Sketch and description: May 11, I; May 18, III; May 25, III, V; May 29, I, II; May 30, II, III; May 31, I; June 4, II; June 5, III, IV; June 7, I, V; July 10, II. With Alarm Call: May 29, II. With complete Long Call: May 29, I. With Plaintive Charge Call: May 31, IV. With Gakkering Call: May 29, III, IV; May 30, III.
8. Low Oblique. Drawing of extreme posture: May 8, I; May 15, I; May 18, I; May 20, II; June 1, II; June 3, II; June 4, II. Comment: May 24, III, IV. On water: May 24, V. Sounds of Choking type: May 24, III; May 25, I. Other peculiar sounds: May 24, III; May 25, IV. With Head-flagging: May 24, III.
9. Head-tossing. Drawings and description: May 8, II; May 12, II; May 15, II; May 24, II; May 25, III, IV, V; July 6, III. Note: May 15, II; May 18, II; May 24, III; May 25, III; May 31, II. Unusually large series by female: May 31, II.
10. Plaintive Charge Call. Postures: May 25, IV; May 29, IV; May 31, IV; June 1, I; June 3, 3.5; June 4, II, III. Call: June 3, 3.5; June 4, II, III; June 5, II; June 9, II, III. Circumstances: May 12, II; May 15, II; June 1, IV; June 3, 3.5; June 5, IV; June 7, V; June 9, IV; June 28, I.
11. Moan. General: May 20, II; May 30, III; June 3, V, VI; June 4, V; June 7, II; June 13, II; July 4, II. Drawing: June 3, II; June 7, II. In Low Oblique, during Ground Ceremonies and Mutual Ceremonies: June 4, III, V. Before regurgitation: May 18, I; May 20, II. Before Choking: July 10, II.
12. Choking. Description: June 3, IV, V, VI; June 5, II, III, VI, VII; June 7, I, V; June 13, I, II, III, V; June 28, I; July 6, III, IV; July 10, II, IV. Drawings: May 8, II; May 18, IV; May 24, III; June 3, IV; June 4, II. Call: June 4, II, June 5, III.

FRANKLIN'S GULL. (1954). III

NON-AERIAL HOSTILITY.

13. Gakking. Descriptions of posture: June 5, I, V, VI; June 9, IV; June 13, V. Drawings of posture: May 15, I; May 25, II; May 29, III, V; May 30, II; June 1, I; June 3, II, III, 3.5, IV, V, VII; June 4, III, IV; June 5, V; June 7, III, V; June 13, II, V. Call: May 15, I; May 29, IV; June 3, II. Circumstances: June 4, IV; June 5, II, VII; June 14, I.
14. Redirected Pecking. May 24, III; June 1, II.

PAIRING AND SEXUAL BEHAVIOR.

1. Competition for stations. June 1, II.
2. Changing of territories. Comment: May 30, III.
3. "Ground Ceremony". Individual variation: May 20, V. Playing with nest-material after the Ground Ceremony: June 5, II. Possibly by a female with territory: June 4, V.
- ✓ 4. "Mutual Ceremony". General comment: May 11, I; May 12, I; May 18, III, V; May 20, VI, VII, VIII. Examples: May 15, I; May 18, III, IV, V; May 20, II. Circular parade: May 31, III. Female going from male to male: June 1, I; June 5, III. Female attacks male: June 3, V. Third birds visiting or intruding: May 24, I.
- ✓ 5. Circular Flights. May 13, I; May 18, II, III; May 20, VII; May 25, IV; May 30, I; May 31, III.
- ✓ 6. Redirection during Mutual Ceremony. May 13, I; May 24, II.
- ✓ 7. Regurgitation and feeding. May 15, I. Male feeding Call, possible examples: May 18, I; May 20, II.
- ✓ 8. Redirection during Food-begging. Comment: May 15, II. Example: May 20, II.
9. Copulation Attempts. Drawing: June 3, I. Apparently successful: May 18, II; May 19, I; May 24, II; May 26, II; May 29, II; May 31, III; June 3, I, III, VI; June 5, II, IV. Apparently unsuccessful: May 24, II; May 25, II, IV, V; May 29, II, V; June 3, I; June 4, V; June 9, III. After incubation: June 3, 3.5; June 4, V. The Copulation Call: June 3, I. Copulation Call relationship to the Gakkering Call: May 29, II, V; May 31, III.
10. Attack by neighbors during sexual activity. May 15, I; May 24, II.
11. Post-copulatory nest-building. June 3, I, VI.
12. Pair-formation. General comment: June 26, I. First real sign: May 20, VIII. Particularly good description early stages: June 1, III. Later stages: June 1, II.
13. Differences between the Ground Ceremonies of mated and unmated males. June 26, I.
14. Apparently autochthonous nest-building. June 5, VII; June 7, III; June 13, II, IV.

PARENTAL BEHAVIOR.

1. Feeding of Chicks. Without trace of Moan: June 26, I; July 4, II;
July 6, I.
2. Aggressiveness toward own Chick. July 4, II.
3. Calling of Chicks. Possible brief Moan, (or even, conceivably,
Plaintive Charge Call): July 6, I.

1954

May 3

Am watching Franklin's Gulls while counting
Ring-bill threat.
Franklins has, at least, the following

1. Upright.
2. Oblique (+ Long Call)
3. Taming (like attacked)
4. Head-flapping
5. Aerial Long Call Note (usual posture)
6. Aerial Long Call (posture?)
7. Alarm Call (? just like typical Louis)

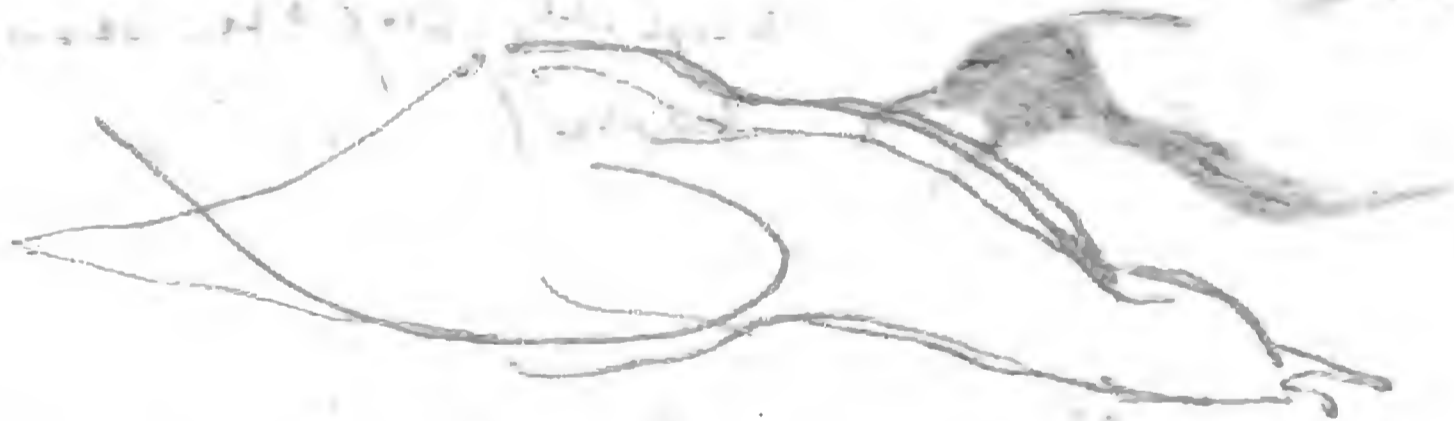
Saturday
May 3

Dump.

Cold Windy Cloudy 10:00 a.m. Very few birds

O-V at Ring-bill. Then neighbor does T. Subdues.

O.O.O.O. - Then OL - T OL - T



OL (extreme)

OL, T, OTT, OTT, O, OLT, OTT, OTT

OL, T, OL, T, OLT, OLT, T, OL, T, T, T, T, O, O, O

OL, OL, T, T, T, T, O, O, O, O

before attack after attack Bird in V attacked after
being attacked 11:25 after attack

vertical line with bracket and text: *vertical line*

Some bird V - other V - OTT

May 6 IV

Think aerial circling and flying, after in pairs, with
reverses calls, but no real pursuits as far as I can see
Aerial vocal long glides.

Aerial calls seem to be three. 1) "Squeal". Single Long
Call Note. 2) Long call. Series of notes, deeper than squeal, and
getting progressively deeper. 3) Mournful Note. Like squeal,
but more plaintive.

Posture in Squeal is unusual
But other postures are also often seen.



Also has Alarm Notes. Rather more like those of the B. L. G.
than those of the large Larus. "kek-kek". Less commonly: "kek"
or "kek kek kek etc".



Alarm Note Posture.

Bird sitting in flock on ground, flies up, circles several
with much gliding, for at least two minutes, circles again, n.a.d.
While in the air, however, it utters, at intervals of a second or so,
single squeals. In posture so.



Noticeable that bill opened
slightly before sound was
heard. 11:55

12:07 O.V. J. T. HF. before attack after attack before attack
after attack. O.T.F. O. Apr. (also posture)

with head low, neck stretched, bill
pointed down, often or neck thrust, apparently
silent. Call it "inquiet peck", or "P". P.P.



Oh. O.T. O.V. J.

Notice that there is often a momentary V between O and T or, often,
the T can be said to be given from the O. 12:20.

May 4th

1:40 Lake by dump

Franklin's and Bourpate's both present

O.O.T.O.

MC. of O.T. V-HF, by one bird at least



MC. One O.T. V-HF - bird dipping. Other

OL.T.T.T. V. HF.



MC. One OL-V-HF-T

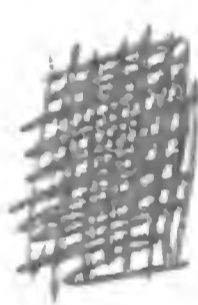


MC. Both V-HF-T - dip

OL. after attack T.T.T. O before attack

OL. after attack T.T.T.T. V before attack V after attack

Bird in O - O before attack OL after attack O.O.V.



Complete MC, on water, seems to be OL-V. Letter may be preceded by T. Usually interspersed with T's, HF's, and dipping.

OL after attack OL OL OL T.T.T. V after attack
OL after attack OL.T. V O O OL O.T.T.

MC. OL-T-V-HF V before attack V after attack
O before attack V before attack V after attack

I think that the "Singing Call" is also characteristic of all these OL's on the water.

Further also a separate attack call? Yes, I think

V before attack V after attack V after attack O.T.T.T.T. V



O posture 3:10

May 11 II



glide posture.

~~MC's~~ dipping

Shorter MC's are U + T and/or HF sometimes + Cpr and/or

Handwritten text, possibly a name or title, located in the upper left quadrant of the page.



Handwritten text at the bottom of the page, appearing to be a list or a set of notes, though the individual characters are illegible due to fading.



Wednesday
May 17.

Dump and dump lake. Arrived about 8:00 a.m.
Warm. Clear. Birds mostly feeding or nesting on water. Have
been watching them, particularly aerial stuff, without taking
notes. Now 8:40

Is "moaning" aerial long call associated with "roar".
At least sometimes.
The glide call _____ is rarely, if ever, associated
with actual landing.

MC. ♂ U-HF, ♀ U-T.

O. O. U. U. O. OL. U. HF. T. PACE T. HF O.T.
T.T.T. T.T.T. T.T.T. O.O.O.O. min min O.T.

Again glide posture



Watching lake now 9:35

O. U after being attacked or before attack O. OL. OL. O. T.
O. O. OL. OL. T. U. D. U before attack U after attack O. O. O. O.
T.T.T.

MC. OL-T-U-HF-T.

U after attack U after attack O. O. O. O. T. OL. O. O. O. O.
U before attack U before attack O. O. OL. U. T. O. O. O. O.

Attack call is "Ka-Ka-Ka-Ka-Ka..." 9:58.

The female is much more likely to dump MC than the male

About 1 hr observation for
the count.

May 12 II

"morning" Long call also given on water, but I haven't been able to catch it yet.

OL.T. OL. OL.T.T.T.T.

Is T often a response by a bird to being OL'd at? O.O.O.O.

OL before attack OL.O.O.O.O.U.HF O.O.T. OL. OL.T.V.V. OL.
OL.O.L.O.L.O.L.O.O.O.O.T.T.T.V.V.V.HF

Saw some HF in OL.

HF after a single movement.

Leaving 10:16

[Faint handwritten notes and sequences]
... after attack ...
... OL ...
... after attack ...

May 12 11:36 O.O.T.

[Faint handwritten notes]
... O.O.V.T ...

[Faint handwritten notes]
... after attack ...
... after attack ...

OL² O¹ V²⁷ Swamp 000⁴¹ 23¹⁴ 13¹³ V²
 OL after attack OL 000⁴⁴

Leaving 12:00

Saturday, May 15.

Swamp Lake 10:05 Sunny periods. Moderate T° strong
 Westerly wind.

O³ O¹ O³ V³ O³ T³ OL³ OL³ V³ V³ HF¹ HF² OL¹ O² V⁴ OL³ T³
 OL³ T⁴ HF³ OL³ T⁴ O³ V³ OL³ O³ T³ OL³ O³ T³

Again heard "Ka-Ka-Ka-Ka" Attack Call



HF after attack T after attack O³ V³ V³ OL after attack
 OL OL O³ T³ HF before attack O³ O³ O³ OL before attack
 HF after attack O³ T³ T³ OL OL O³ O³ V³ OL OL T³ T³ O³ O³ O³ O³

OL almost flat in water
 10:30



Interesting example. Pair swim together. MC of O - V with
 several T's each and several HF's each. Then swim in swim V.
 Female T's fairly steadily, not too rapidly. ♂ also T's, less often
 than female. ♂ occasionally bends head to water. Also, every now
 and then, both birds go back into complete V. ♀ starts to peck at
 ♂'s bill, then moves a few feet away, in apparent panic. Back usual.
 Both V, with T's, both relax, keep T'ing, ♀ begins to regurgitate.
 Then both are attacked by neighbor, and a short ruffle between the
 neighbor and the swimmers. Quickly breaks up as neighbor retreats.
 ♂ back to ♀. She starts T'ing again. ♂ bends head down, regurgitates.
 ♀ feeds. They swim apart, and start to preen 10:40.

OL T.T.T.
 swim

May 15 IV

Charge call during brief aerial chase 10:55

OL¹⁷ OL¹⁵ T¹³ O¹¹ O⁹ O⁷ U⁵ OL³ O¹ T¹⁶ T¹⁴ OL¹² OL¹⁰ O⁸ O⁶ OL⁴
T²¹ T¹⁹ OL¹⁷ OL¹⁵ OL¹³ O¹¹ O⁹ OL⁷ OL⁵ T³ T¹ O⁴⁵ O⁴³ U⁴¹ U³⁹ OL³⁷ OL³⁵ T³³ O³¹ O²⁹ U²⁷
U^{after being attacked} T¹⁸ O¹⁶ OL¹⁴ O¹² O¹⁰ T⁸ U^{before attack}
U^{before attack} D^{after attack} U^{after attack} 11:28
OL³² OL³⁰ OL²⁸ O²⁶ O²⁴ O²² U²⁰ U¹⁸ U¹⁶ HF¹⁴ T¹² T¹⁰ OL⁸ OL⁶ T⁴ O² O¹
O³⁰ O²⁸ T²⁶ O²⁴ ~~OL~~ OL²² T²⁰ T¹⁸ T¹⁶ 11:37 O¹⁵ O¹³ U¹¹ T⁹

Redirection attacks, After or during FB, seem to be unimpaired.

II Two more cases FB ^{+ require} without a trace of Redirection. And another

U^{after attack} O⁶⁵ T⁶³ T⁶¹ O⁵⁹ O⁵⁷ OL⁵⁵ T⁵³ T⁵¹ T⁴⁹ O⁴⁷
O^{after attack} U^{after being attacked} O⁴⁵ O⁴³ O⁴¹ OL³⁹ OL³⁷ U³⁵ U³³ T³¹ T²⁹

Little or no HB in the FB I've seen.

T⁴³ T⁴¹ OL³⁹ O³⁷ OL³⁵ OL³³ T³¹ T²⁹ OL²⁷ U^{before attack} OL^{after}
attacks U⁴⁵ U⁴³ O⁴¹ O³⁹ OL³⁷ T³⁵ T³³ T³¹ T²⁹ U²⁷ O²⁵ O²³ O²¹ O¹⁹ OL¹⁷

T in OL



OL sound is the same as glide sound. Sometimes, at least. In fact, this seems to be the Long Call 12:22.

O⁴⁸ O⁴⁶ O⁴⁴ O⁴² OL⁴⁰ OL³⁸ U³⁶ U³⁴ O³² O³⁰ U^{after attack} OL²⁸ T²⁶ O²⁴
O²² O²⁰ OL¹⁸ OL¹⁶ U¹⁴ U¹² HF¹⁰ T⁸ T⁶ OL⁴ OL² T¹ OL¹⁰⁴ O¹⁰² O¹⁰⁰ O⁹⁸ O⁹⁶ O⁹⁴ O⁹² OL⁹⁰
T⁸⁷ U^{before attack} D^{after attack} O^{before attack} Retreat in
U⁸⁷ O⁸⁵ T⁸³ O⁸¹ OL⁷⁹ T⁷⁷

Change call from land charging on water and just above water (when Ka Ka is usual).

1:05

First egg Monday, May 17

Tuesday, May 18

Small Island Colony 1:15 Down few birds. Fly. Weather, warm, sunny, not much wind.

One down on nest site 1:45 Has up again.

in

~~During~~ Descending part of charge with very deep beats of the wings. Also rapid, but probably not more rapid than during ordinary flight.

♂ lands Desc OL-T-T-T joined by ♀ (she came in mostly gliding, with glide call MC at first U (with HF or T?) then series of OL (with T's?) then U then both fly off 3:27 Back

giving Alarm Call from U.

Off again

Part A

During the above sequence, ♂ bent head to ground several times, giving soft, long-drawn, plaintive brooding notes "Kooooo-ooooo" ♂ feeding call?

Back again OL-T OL OL OL-T-T-OL-T OL
OL-T-T OL OL
New birds landing all around 3:32



OL can be definitely with tail up by the end.

Birds still circling, giving Alarm Call, in considerable numbers, but some have landed and are apparently relaxing

O.V. OL-T-T
OL OL

May 18 II

T Call is higher pitched than OL or even O notes

Rendering of OL-T or

OL-T OL OL-T-T OL O OL O OL-T

Bird doing charge - sweep-soar pattern, all by itself, far off in distance, over water.

Bird flies up in distance. Charge another, with charge, soar. Continues charge. Sweeps off. Charge - soar by itself. Flies off. Feeds again in distance. 4:16.

Most birds fly up as plane goes overhead. Notice that Terns immediately occupy some of the numerous houses on which gulls have been sitting.

Single bird. Call at B. Has been standing near hole. Young GC. to very young bird. No response. Unwanted male?

Now seems to be back, in water near old stand 4:22.

Flies off. Back, on ground. Off again. 4:28

Have noticed several times that a ♂, when ♀ begins real T-B, may fly away, or make little circular flights, either before or after negotiation. 4:42.

♂ showing no sign of T, even when being FB'd at vigorously & repeatedly by a ♀.

Copulation attempt, apparently successful. Did not catch the immediate preliminaries, but the ♂ had fed the ♀ about a minute previously. Copulation itself looks much like that of the P. l. g. Same movements, including ♂ pulling down at ♀. No bill work.

May 18 III

open, red gape very conspicuous. ♀ struggled, but didn't pick up at
♂'s call a hoarse, rhythmic "Keli-Keli Keli Keli-Keli -"
Becoming louder & shriller, more like Long Call, when ♀
struggled. ♀ finally ran out from under. Both birds immediately
by V. ♂ shakes, PAC 4:50

Landing call seems to be much like Glide - Long Call.
Less penetrating. More irregular? Fewer short brief "explosive"
notes at end?

There are certainly some brief aerial pursuits, if
nothing more.

Again bird doing charge - swoop and fear,
aimed at nothing.

Have several times seen little circular flights by ♂'s
after MC with female (don't know if their own female). No
obvious aggressiveness, unless, possibly, Longcall Notes 5:03

Thump in neck conspicuous during O's and OL's



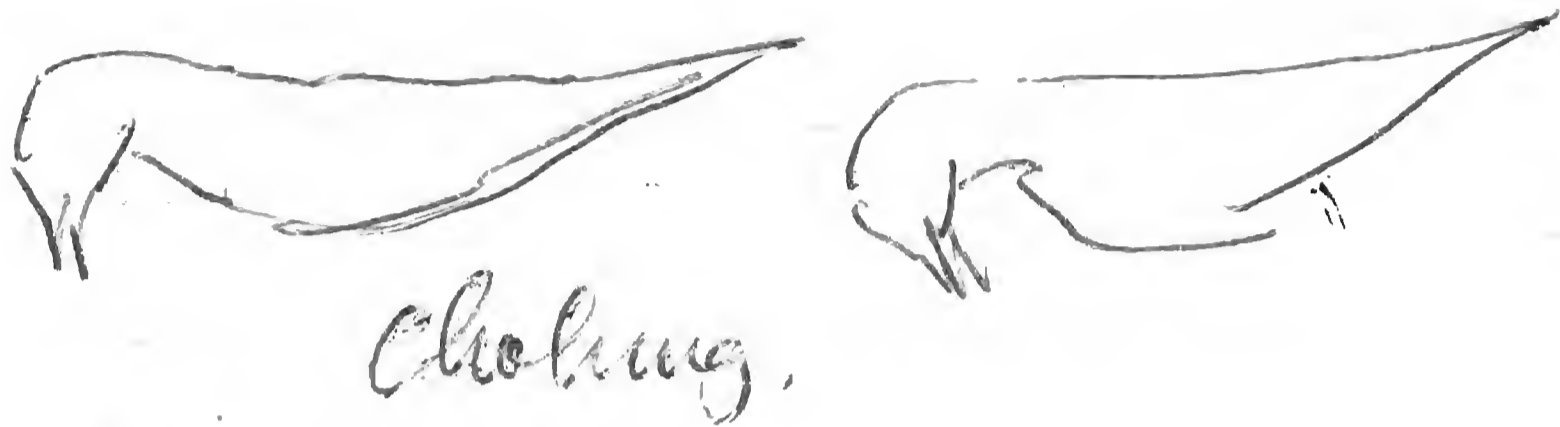
Not exaggerated.

This pairing behavior. ♂ alone on station. Doing
O, OL, OL-T, OL-T-T, etc at early morning, flying kind then
♀ lands as ♂ does OL. Both OL - V-T & HF. (HPG and Cpr)
in the male. Then ♀ makes a little circular flight. MC each
time upon her return. Usually just V & HF and T's (never not
synchronized for their part, either might do a variable number, in
varying order). Noticable that ♂ might OL-T to the female as she
circled overhead but he just V-HF to her as she landed. (showing
white rump or holding black head) after several MC. They relax.
♀ sleeps. Agrees. 5:25

May 18 IV

Spice fight. 2 birds. One stands in O, means, then, still in O, gives charge call. Other stands in O, means, chokes, walk to meaning in O, attacks female. Attached flies off. Winner. Does OL-T-U. 5:31

C♂
(see next page)



Same bird, ♂, stands, doing OL-T's to female. Then stands in V, between OL-T's & lands MC. of OL-U with T. Attacks ♀, she flies off unharmed.

C♂
!!!

Have just definitely seen a female perform MC. with one male. Then fly off. Give several times. Land beside another male and perform MC. with him. Praise god from whom all blessings flow. 5:45

Yes Landing Call or definitely sort of thing.

Definite Summit Flight with two charges and two

Seems I have again seen a stand in V, between OL-T's at jamis-by. This seems to occur when female is landing, or, at least, circling low-over head.

I must say that all the solitary birds, presumably unmated males, and all the unmated males or loosely mated males of whose status I was certain, were on their stations off and on so to speak. Occasional absences are frequent

Spike call (really) (I think)

May 18 V

Longer, louder, "hollower", more penetrating ~~than~~ than the Landing Call, but more like that than the ground Long Call.
8:05

Panic circle, but hardly silent. Pelican flying above
flow, of course, after all that, one Landing Call outside
was exactly like a brief, less loud, ground Long Call. Had the
= at its end.

MC. in which ♂ does U-T-O-T-U-attacks
female - O-T-U-Cpr. 11 (Probably, in this species,
I may begin an MC more frequently than in the B.C. More
frequently, at least, during early pairing) This small ended by
the male attacking the female, and she then flew off. This,
incidentally, is the ♂ I saw in the Choking dispute above.
That may have been pairing also. Almost certainly was, in fact.
He is certainly not overfriendly. Call him C).

♂ to left of B station has been displaying for a half
hour, without result to the Call him BB

land). O-T-U-T-U O-T-U-T-U O-T-U-T-U O-T-U-T-U O-T-U-T-U
O-T-U-T-U O-T-U-T-U O-T-U-T-U O-T-U-T-U O-T-U-T-U
(very low flying)

Wednesday
May 17

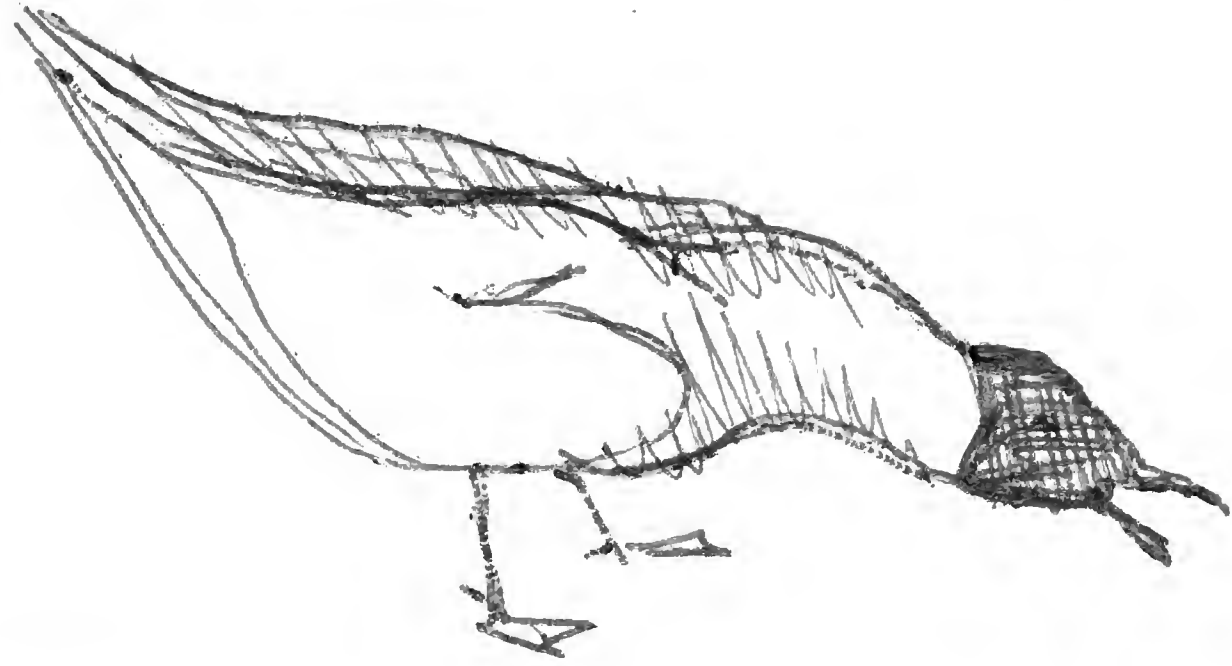
While watching some Bonaparte's Gulls in flooded field, near
Delta, noticed that Franklin's were copulating. Female standing in a
few inches of water. Apparently successful.

Also noted some aerial behavior in Portage and near dump.
A charge and loar directed at another bird. Very
close. At closest the charge call became almost staccato
Also a gull flying overhead, with regular wing beats. Giving
Long Call notes very reminiscent, in quality, of the Charge Call.

No gulls at dump when I arrived 8:15, but now, 8:30
a few are flying in, or at least, over.

May 20 II

Jan A. ♂ alone, with head to ground, giving ♂TC,
 "oooooah" "oooooah", etc; ♀ lands, gives U, T, pecks at
 ♂'s bill, ♂ into U, pecks ♀; ♀ flies off. 2:10



angle of OL

Ch. Another pair. One joins other. OL - U with T. Stated in
 U. ♀ T's several times. Then ♂ bends down, in a position very much
 like the OL position but which is really, I think, the negotiation
 posture ♀ begins to peck frantically at ♂'s bill. Things get confused
 rapidly from then on. ♂ does, at least, one O, one U, several T's, in
 interval of bending down. ♀ does, at least, several walks around in
 U, in the interval of her begging bouts. ♂ flies off, circles, giving
 Long Call Notes, but no other sign of aggression. Once, when
 he passes overhead, ♀, who has remained on station, does U with at
 him. Next time, as he returns, she just stands in U, head pointed
 away from him, as he lands. More M.C. of U + accessories. More feeding
 or incipient feeding, & begging. Then ♂ flies up hurriedly, with attack
 call. Flies up so hurriedly that he passes the ♀. She flies away
 ♂, apparently without noticing her departure, begins to attack
 nearby coast. This aerial attack is something I have never seen
 before. Constant attack notes as he swoops down, with beating
 wings, and these continue, as he swoops up, still with beating
 wings. This repeated again & again. ∴ swoop (attack call increasing
 in intensity & frequency), swoop up (attack call slightly decreasing),
 wheel turn (attack call at its lowest intensity), swoop (attack call
 increasing) etc. etc. Then ♂ flies away, out of sight. 2:40

OL-T, O, OL, O, OL, O, OL, U, O, OL, O, O, OL
 um, um, um, um, um, um, um, um, um, um, um



head shape during some U's

May 20 IV

couple of vague HF movements. Her V was possibly less agg. than that of C.

C + BBB both there now. 3:32

O-T in OL OL-T (particularly near land)

Again see ♀ (presumably) visit C and then fly off to display with a far distant bird.

Again did T just as visitor left.

This M.C. as far as I could see, was just V, by both, plus 2 Cps by ♀.

C does O as ♀ lands. then O-V-HF-HF attack. ♀ does O-T-O-V-escape.

Bird on water in addition to BBB (now on land). Call this B4.

General pause 3:43. Quills break. B4, and C, back immediately.

By joined by ♀. By does OL-V-T-T-OL-V-T-T-V. ♀ does OL-V-T-T-V-HF-HF-V. By advances steadily as ♀, she retreats steadily, finally flies off. then, after a pause, B4 does. (Obviously ♀ less aggressive)

OL OL-T O OL OL-T OL OL-T O

By seems fond of flying off, returning after a variable interval.

Both BBB and B4 gone now 3:50. C just preening.

Watch D, another apparently unvisited bird for a while. O.O.O. OL. L. L-OL. O. OL-OL-T. Also E. O. L-OL-T. L-OL, OL OL-OL.

May 20 VI

about due T about 4 HF's

2/

C does ... T-V-T-T-V as 2 birds. then MC ...
altack ... 10 12 13 4 17 14 15 3-OL-16-17 escape.

By hasn't been around for a long time, but BBB and C are almost indistinguishable shape, now gone 5:32.

B back, & gone missed. O-T-T O-T-T B back

O-T-T OL-T TTT/O.O.O/OL-T-OL-T/OL-OL-T-T/
V.V. O.O.O/O-T/ Other, all apparently solitary, all around the
hole O.O.O/5 45 OL-T-T OL-T-T/OL/O.O/OL-T-T/OL O.O.
L-T/O.O.OL/OL-T-T/OL.OL.OL.OL/OL-V-T-T-T O OL-T

Same 5:55 OL-V/O OL-T T OL-T/O.O.O.O/O

C joined by Q C does O-V-T-T-T-3-T-3-3-T-
Y-HF-Q Q does V. 6:00

OL-T-T-V-OL-T-T-V-OL-V-T/T-V T-OL

O.O.OL-OL/O.O/OL.OL/O OL-T/OL-V/OL O.O.O OL-OL

I must say that the Q of pygmy I have watched during MC's this afternoon have not been nearly as "nervous" in appearance, as many of BBQ's. They have also shown less any V's. The "leafed" at least after, seems to be strongest in the 07 6:15.

Bird doing drive-charge-soar pattern first at one bud, then in apparent rams, then at a second bud, then lands

OL.O.O OL-V O.O.OL (this is BB back again) O.O.
L-OL O.O.O.O.OL.O. O.O.OL O.O.O.O.OL OL-OL-O

O.O.O.O.O.O.O.O/O.L-OL. OL.O.O O.OL OL-OL/a:30

O/O.L.O.OL.O.L.O O.O.O.O.OL.OL-OL O O.L-OL O.O.O.O

by CDE + 13

May 20 VII

Time 6:40. Breaks up quickly.
Bu walk OL-T O-OL-T

Peculiar MC's at C involving C, at least one ♀, and two
other birds. Scuffle 3 different MC's.

(1) ♂ U-T-B-T-B-T-U ♀ U-T-B-B-B-T-U

(2) ♂ U-T-U-T-B ♀ U-T-B

(3) ♂ U ♀ U

Each time ended by C attacking ♀

In between times C's behavior also peculiar. Standing
U-T-T-U-OL-T-T-U-T-U-T-T-OL-T-U-T-U-T-U-T-U

O: OL-T 6:51. O OL-T O OL-T OL OL OL-T

OL-T O.O.O. OL-T-T OL-U OL-T O.O. OL-OL

MC ♂ does O-U-T-T-B-OL-B attack. ♀ does U.

MC ♂ does OL-OL ♀ does U ♀ flies off unred.

(This, call it AB, was possible pair. Anyhow, the two birds
land together) 7:12.

BBB has MC with ♀, which I don't catch. ♀ flies off.
BBB hesitates a second, flies up after her. after a couple of hundred yards,
neers off, circles twice over tent. Does two glides during this
circling. Neither glide obvious, aimed at anything. Lands.
Relaxes. 7:32

OL-T. OL-T-T OL-T OL-T-U

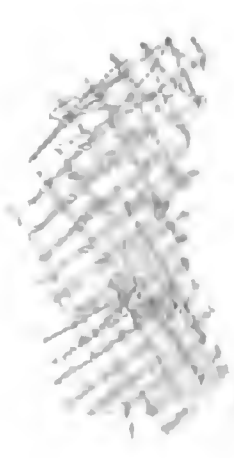
MC at C ♂ does U-HF-B-Cpr-B-B-U-Cpr-Cpr-
U-Cpr-U-Cpr-Cpr-U-Cpr-B-HF-HF-HF-U ♀ does O-U-T-U
Advances toward ♀ she flies off hurriedly

I think it is probable that ♀ is more apt to do O before
the ♂ during such MC's, because the ♂ has just done an
OL-T, or something similar, just before she lands

May 20 VIII

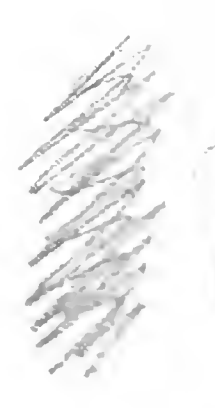
*15


M.C. at C. ♂ does O-U-T-U-HF-U-T-U-⁹⁻¹¹ attacks
 ♀ does O-U-T-U-T-U-T-U-flee away hurriedly
 (C did OL-T-U as ♀ came in)

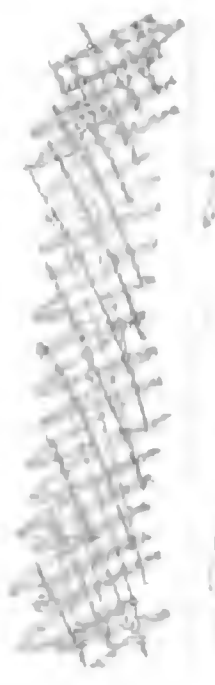


♀ back at C now, 7:40, being allowed to stay for a little while. Is he becoming mated at last? He flutters her again - then flies off himself. (This may be nice response) He is apparently still very shy of a ♂ only over her with longer and longer
 ♂ does OL-T-T-U OL-T-U Another bird lands, but is attacked immediately - then period of calm

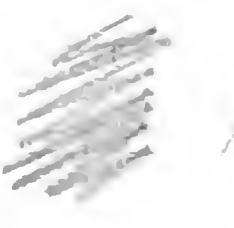
OL OL-T OL-T-U (to land about to land) OL OL OL
 in in in in in in in in in



C does V as visitor lands, then immediately attacks "her" then he is mated by somebody else he allows to stay for a while then both fly off



♂ appears (certainly C at least), are probably even more likely to attack a visiting female than are ♂ individuals? And yet they tend to show fewer of the higher-intensity postures. Why? Could it be that the V of this species may extend into higher intensities of motivation than the V of individuals? Could pupae be intermediate between delawarensis and richardsoni in this respect? Must check!



By immediately attacks a ♀ who comes down to visit him in response to his invitation. 8:00

OL-T OL-T OL OL-T O T OL OL-T OL OL-T
 in in in in in in in in in in

*16

OL-T-T-T
 in in in



Again classical case C does OL-T-U-T-T-U-T-U before ♀ lands then O-U-HF-U-Upr-U-Upr-U attacks C does OL-T-U - escape ♀ flies off under Park. Attacked again immediately, although C had given usual "invitation" display. ♀ flies off under again & again, even banks for insects. Back over or behind overhead C does OL-T, or OL-T-U with tone. Finally, she lands beside B, is immediately attacked, flies off. Circles. Searching for insects. Lands beside attacked male and is lost from sight 8:15

May 20 IX

C sitting now. Cooler. Gulls obviously more
active. Saw my first copulation of today about 1/2 to
3/4 of an hour ago.

!!
!!
!!
C mounted by 2 ♀'s! Displayed with bottle. First one, who
flew a foot or so away, then the other, then attacked first, then attacked
the second. Again obvious how he was under greater strain than
either ♀. He did much PAB, once picking up twig and pounding
the ground with it 8:25.

OL-T. OL O O O OL OL OL O O O O O
un un un un un un un un un un un un un un un

OL T. O O O. OL-OL-HF-OL-T. OL-T OL OL-T
un un un un un un un un un un un un un un un

T sound certainly seems to be well within the range
of variation of Long Call Notes. BBB's for instance, is lower in
pitch than that of many LCN's I hear about me in the air
now. H-T note may perhaps, however, have more
"twang" than the LCN notes, and/or a more rising
inflection.

Almost too dark to see now, 8:40.

C sitting peacefully on station, still quite alone.

Too dark to see. Milton coming 8:50.

Monday
May 24

Warbler very windy and rainy for the last 3 days. I
had to come out. Snow 5:25 p.m. it is still very windy, but the
sun is at least shining temporarily. I had to come in blind alone,
so the birds aren't happy. Had to tether boat outside. Lots of
birds, however. For once go down rather quickly. Some giving
alarm call.

C down 5:30 sitting peacefully

OL-T-U O-T O-V O-T-T-V O O-T-U O O-T

MC of X, has MC with ♀. Again ends by his curling at
her in apparent attack initiation movement.

D or E back 5:40

OL-T-T-T-O-T-U by ♀ visiting X then X lands.
MC by X ♀ V-HF-HF-HF-V-O-V flies off ♀ does V-HF-HF-
HF-O. X, on flying off, just circles. Pumble LEN, but even this
is dubious. Back MC by both of V-HF-HF ♀ flies off, circles,
gives one LEN Back MC ♂ does V-T-V-O-V ♀ does V-HF
X flies off circles ♀ remaining, does C.C. at flying birds (probably
at X himself) X back to find another bird under the ♀, generally
a melee, both visitors fly off X remains, in V. 5:50.

Look up to find ♀, presumably same one, with X Both in
V. ♀ flies off, circles, back MC ♀ put in head-down bent
posture



presumably connected with landing. Then

flies off. Circles Back MC of ♀ V, ♂ V-O-T-T-V-Cp-cp-cp-cp
Relax sit together

General pairs 5:55 Breaks up quickly.

X pair may have begun, but just, forming pair-bonds.

May 21

HF-U HF-U

1/1
1/2
1/3
1/4

Notice MC at X. ♂ U-O-T-T-T-O-T-U ♀ U-O-T-U
stated loudly, in return U for a second time, then off
in great hurry, screaming, low notes, obviously aggressive
center back MC of U-Cpr-U by ♀, U-PAC-U-Cpr-T-U by ♂
relax momentarily

Notice MC at X. ♂ does U-OL-T as female lands then
U-OL-T-T-T-T-U-Cpr-U ♀ does U-OL-T-Cpr-U-Cpr-U-Cpr-U
U 6:12

Cold as all hell now. Wind still strong. Sun still out.
None of the Blues back, but, as nothing is kicking up above,
this may be due to the fact that the water level is higher today than
Wednesday. A u back.

Watch C for a while 6:17

HF-OL-T-T-T-U-OL-T-T-U-O O-T-OL-T/O-T O-T-T
minimum minimum minimum

O-T OL-T C is apparently still unmated OL-T-T T OL-OL-T
min min min min min

Really major panic 6:37

You still now 6:45

Red clowning 4 repeated charge - doors apparently in

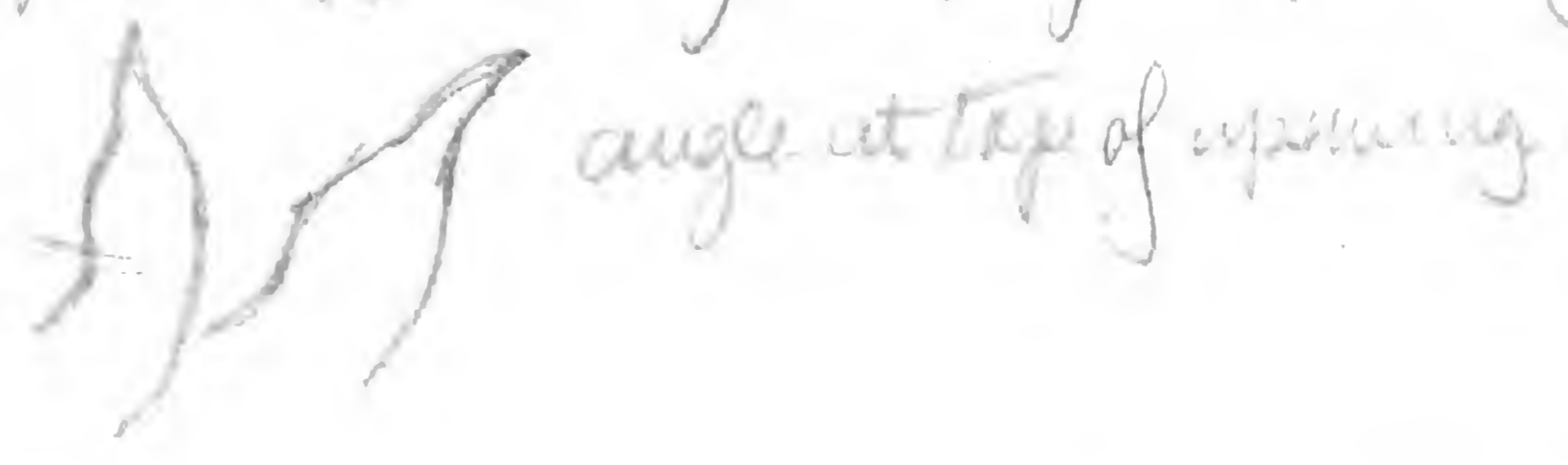
3 waves

Repeated cop attempts pan E. Preceded each (3) times,
immediately by mutual FB. Provokes attack from D

Again cop. at E. Appor. successful. Preceded by mutual
FB. At first birds seemed to alternate FB from H and from W. Then
Q in H prominently, then U prominently. At moments, begins cop. call
Q continues, FB irregularly, throughout cop. ♂ continually peeps
downward & finally while tops of ♂ U-HF ♀ just peeps.
6:55.

Band, P, in front of hide so close that I hardly dare look.
Apparently unmated ♂, gives constant GC's.

Notice that during T, after OL, its bill opens slightly
during up-swing, closed by the top of the up-swing.



May 24 III

+ centricity

LCN and T note are almost identical. Both higher pitched than even the early notes of the complete LC.

L sound could almost be transcribed as "woof-woof-woof..."
The duration of L posture is not to extreme.

Occasionally during L, bill is briefly, very briefly, pointed downward. This, in combination with the hoarse, rhythmic quality of the accompanying sound, makes me think of choking.

As far as P is concerned, the only difference between his LCN and T note is that the former is louder and more pressing 7:07



Posture (and fairly exact proportions) during "choking" type of L

Actually, this Ch type of L is not always so momentary. Some times briefly prolonged. One followed by pecking up wings tail.

Other type of L sound is harsher, more explosive, more like the "Dik"s of the Alarm Call 7:12.

P is very earnest in his "cooing". Does AC's almost constantly.

Does WF in L, plus the pronounced neck and body tilt, when flying but comes near. Then, when the flin comes near, still, stretches neck up and gives attack call. He naturally means "come on".

Very definitely the "woof-woof-woof" type of L is transitional to Choking. Just saw it pass over into unmistakable Ch.

This is probably the bird that, on Wednesday, began his GC's with what I called "L" (without C). Actually, these are heard little performances are probably L-Ch.

Also brief traces of Charge Call during the "woof-woof" L

OL-O | OL-O | (LCh)-OL-T | OL | (LCh)-OL | 7:30

OL-T | OL-T | (LCh)-O | LCh-OL-T | (LCh) between GC's | O-OL-T

O-(LCh)-OL-T | OL-T | O OL | O-OL-T | (LCh)-OL-T

May 24 IV

11
000

Three versions of L call. L proper (continuation of O₂ shorter and
deeper), Lch, L alarm call. Also change call.

L proper, LAC, and change call seem to always follow O.
Lch may also follow O - but also after the previous, etc.

OL-T | OL | Lch-OL-T-T | OL-T | O.T. O.T. OL. OL-T-T
~~~~~

Time 7:40. The most intense I have ever seen. Bird began,  
after flying up, to give a call I have never heard before. Peculiar.  
Almost as if produced by musical instrument, far away (flute?)  
"Hreece! Hreece! Hreece ...". I think.

Breaks up almost immediately. P back as usual



fighting aerial postures, with  
attack call



also hovering with attack call

OL-T-T-T | O. OL-T | O.O. (Lch)-OL-T 7:50. O. OL-T |  
~~~~~

OL-T-T | O | OL-T | O.O.O. OL-T. O.O. (Lch)-OL-T-T. O.O.O.O.O. |
~~~~~

Slight game 7:55. Do not affect birds in my vicinity,  
and quickly breaks up anyhow.

Attack call during my brief leave

M.C. as presumed of Jarvis P. (same as P). Seen  
points of interest are that Q landed literally right on top of P. And  
then P stood in V with bill apparently closed, and gave charge  
call & flew off 8:05

By heck, I'm glad to see



May 25 II



Posture with Attack Call on Land.

Major panic, repeated at 4:08



MC. at C. ♂ does O-T-T-T-T-V-T-J. ♀ does V-HF-V-HF-V-HF-V flies off. C follows, but I lose them.

Still another bird. OL-T-U OL-T OL-T-U O-OL-T  
~~~~~ ~~~~~ ~~~~~ ~~~~~

Also about 6 "kek kek" Alarm calls, in semi-oblique posture. Directed at me? Or at flying birds? Probably the former.

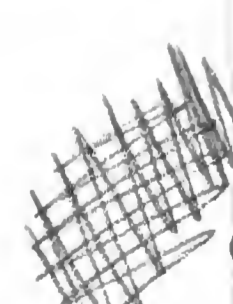


MC. ♂ does V-T-T-V-T-T-V-HF-Cpr-HF-V-HF-Cpr-V. ♀ does V-T-HF-O-HF-V-HF-V flies off 4:23 followed by ♂.

OL-T O.O. OL.OL. O.O.O.O.O. OL-T OL-T O-OL. "L"-OL-T-
~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~  
O-OL 4:30. OL-T O. O.OL.O. OL-T O.OL.OL. O.O.O-OL. O.OL  
~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~

O-OL-T-O. OL O.O.O. O.OL.O. O.O.O.O.O. O-OL-T. OL-OL-T
~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~ ~~~~~

O-OL-T. OL-T-O-O-OL-T. Very dull now 4:52, as usual.  
~~~~~ ~~~~~



Swoop - fear with attack call differs from charge - fear with charge call in being more up & down, but covering less area.



C returns to ♀, who has been waiting. She wishes to join him, beginning FB HT, from H, right away. C stands in V for a while, makes a few half-hearted PAC's, then (after ♀ has done at least a dozen T's, he begins to T himself still in V. They continue like this for a few moments, ♀ still doing more and more rapid T's than

May 25 III

C. then C attenuates T-Cop Call - T - Cop Call - T - Cop Call.
Moms stops T, but continues Cop Call. ♀ continues T,
irregularly and at intervals ♂ pecks downward quite frequently,
♀ makes ratters, side-to-side wobble movements. ♂ standing
upright, waving wings, no attempt to lower tail. ♂ slips
off. ♀ flies straight away. ♂ relaxes 5:05

Even more nest-building than usual going on today.
Several birds back in B area now 5:20. Watch them
for a while.

OL-T. OL-T. O. O. O. O. O. O. OL-T. O. O. OL. O. O. O.
~~~~~

Absolutely no difference between T note and LCN here

O. O. O. O. O. O. O. O. OL-T. OL-T. O-T. OL-T. O. O. OL. O. O. O. OL-O-T. O. O.  
~~~~~

OL-T-T. O. O. O. O. OL-T. O. O. OL-T. OL-T. OL-T. O. O. OL-T. O. O. OL-OL-T
~~~~~

"L"(CC)-OL-T O. O. O. O. "L"(CC). O. O-T. O. O. OL-OL-T-"L"(CC)-O  
~~~~~

Try another bird 5:43. Back to David E

O. O. OL-T. OL-OL. O. O. O. O. O. O. OL-OL. OL-OL-O-O. O. O.
~~~~~

OL-T-OL  
~~~~~



Angle of O. Very atrilla or minutus
like.

neck, wing,
much shorter



angle of bill during T (OL)
(extreme) (think)

May 25 IV

Visiting females are more as bill scarce 6:00

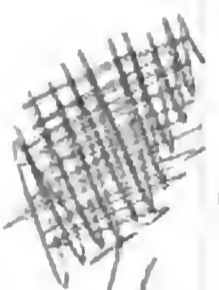


(OL) T is more like this.

Getting colder now - 6:10. Shadows getting long



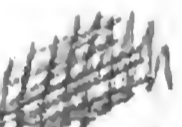
MC. at D ♂ V-T - head down with CC - T - ♂ - T - ♂ - Gpr Gpr
♀ V - head down with CC - ♂ ♀ V - T - ♂ - T - OL - T - ♂ - HF - HF
flees off 6:17.



This species doesn't seem to have much apparent "aux" in its "aux" V. Or at least, these visiting females don't.



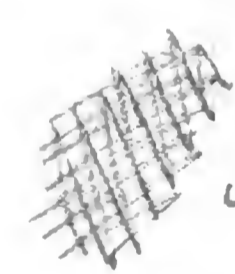
MC. at C. ♂ does V-T - V - HF - HF - ♂ - T - ♂. ♀ does
♂ - T - V - HF - HF - ♂ - T - T - T - T - ♂ - PhG - V flees off.



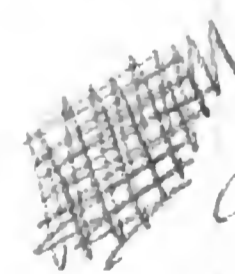
Bill open in OL until quite far down at least (in C).



(PhG - ♂ - PhG - ♂) MC. at C. ♂ does V - HF - HF - ♂ - ♂ - V ♀ does OL - T - V - T
♀ flees off. ♂ does V - T after she goes



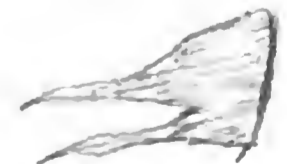
♀, after MC. with C, circles round and round, flying in "normal" flight, but uttering many many CCV's. 6:32



Sees, after attack with attack call, is probably always, or at least usually, by a bird breaking up the attack and about to leave



Change call in L accompanied by open bill



come ca



MC. at C. ♂ does T - V - HF - HF - V - HF - ♂. ♀ does V. Flees off. ♂ does T - OL - T after she goes.

More and more birds coming in now - 6:45

May 25 V

MC at C of the usual type (in which ♂ did T). Then ♀ begins FB T practically, sometimes from U, sometimes (especially when actually pecking at ♂'s bill, from H. ♂ stands in U, occasionally bends head to ground, finally regurg. ♀ eats. Then process begins again. ♀ FB T as before. ♂ regurg. too, less often than ♀, usually from U. ♂ regurg. again. ♀ eats. Then both disappear behind clump c. 52.

Wind coming up

Same process continuing at C. Then ♀ walks away a few feet. ♂ flies to water. There he does many typical CC's to flying birds.

This T seems, as far as the movement itself is concerned, absolutely identical with the CC type of T. During FB the bill looks, to the casual observer, closed throughout the movement — but this may be deceptive.

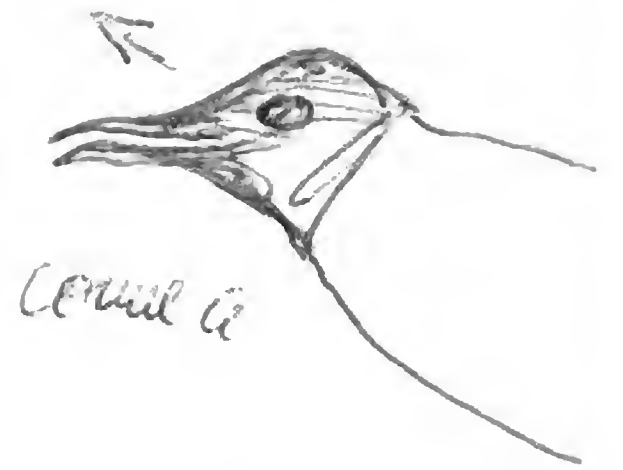
C seems to be partially mated now. The female stands or walks near him as he pecks in a thoroughly relaxed fashion.

Then he starts FB T, from H, again. ♂ does usual side to side head & neck eversion, but also keeps bending his head to the ground. Brief traces of U by ♂. ♀ finally fed, eats less well. ♂, after regurg., stands in U of HF. Then he flies a foot away, PAB or clips. Now out of sight. ♀ standing peacefully on his station. Now flies a few feet away, out of sight.

Leaving 7:10, as wind increases

Not quite. Trying to see if bill is opened during T (CL). Yes I think so. Slightly, in the middle of the movement. Leaving 7:15

Bill often almost closed at beginning of C.



Wednesday
May 24

Amur dump gulls on lake. Sunny, but very strong cold easterly wind
5:25

9:3. OL-T. O.O.O. T.T.T.T. OL.OL. T.T.T.T. O.O.O.O. U.U.U. OL.OL.OL.
U.O.O. O.O.O. OL. O.O.O.OL. O.O.O.OL.T. O.O.O.OL. U.U.U. O.O.O. OL.OL.
O.O.O.O.O.OL.OL. U.U.T. O.O.O.O.OL.OL. T.T. T after being attacked 3:43
U after attacks HF UHF. U. T after being attacked OL.OL. O.O.O.O. T.
O before gummy attack call OL. U.O. HF. Leave 8:50

Wants gulls on field near dump. U before attack U after attack O.O.
Back to lake 9:20. O.O. HF after attacks U. O.OL. T. O. O.O.OL. T.
O.O.OL. T. U after attacks U before attacks U after attacks OL. U after
attacks OL. O.T. U before retreat O.O.O.OL. 9:32. U after attacks
O.O.O.OL. T. U before attacks O before attacks HF after attacks U after attacks
O.O.OL. T. OL. T. O. T. O.O. O.O. U. O.O.O.OL. T after attacks T.O.O.O.
O.O.O. O.O.O.O. T before attacks O before attacks OL before attacks. T.O.O.O.

A number of attacks preceded by CC, without distinctive posture

OL. T. B. U after attacks OL. T. OL. O.O.O. T.T.T.T. OL. O.O.O.O.
OL. before attacks T.T.T.T. O.O.O.O. OL.OL. O.O.O.OL. O.O.O. T before
attacks. T after attacks T after attacks. T.T.T. O.O.O.O. OL.OL. T. OL.OL.OL. T.T.
O.O.O.O.O. 117

Leaving 10:25

Friday May 28

8:35 a.m.

Roost or loafing ground in field near dump. All local laws present
bird in T attacked - U before attack - U after attack with HF O.O.
U.U.U. U before attacks U before attacks U before attacks U before attacks U after
attacks U before retreat. O.O.O.OL. T.T. U before attacks U after attacks HF HF
U after being attacked HF HF O.O. O.O.O.O. OL. T.T.T.T. O.O.O.O.O.O.O.O.O.O.
O.U.U.U. U. U before attacks U before attacks U after attacks U after attacks -
bird in U attacked U after attacks 9:00. Birds drifting away.

A good deal of sexual behavior, including quite a number of
copulations, going on in this field. U's after cop. Lots of early morning calls
Quite a number of juveniles also

Many fewer birds. 9:00. In dump again.

May 26 II

Lots of clump, field 9:26
O.O.O.O. OL OL. T.T.T.T. U.U.U.

Lots of cop attempts again. Some apparently successful.
Some interspersed with. Two after which of did U-HF (one in which
♀ resisted by falling upward. Certainly not FB). One in which ♂,
after mounting & food a long time, waving his wings, made change FB
at the same time.

Rain 9:35

Hyde attack O.O. U.U.

Leaving 9:40

Saturday, May 29.

Arrive small colony 6:25 a.m. Sunny. Fairly warm. But
clouds piling up.

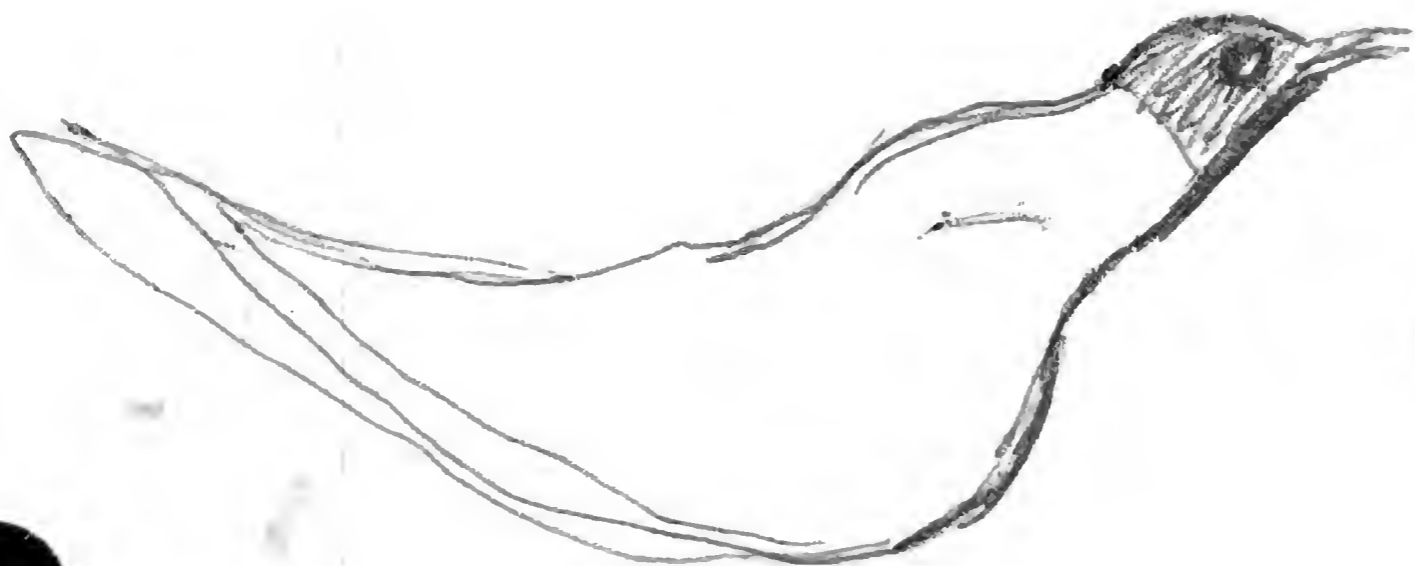
C back by 6:30.

Also D or E bird.

Colony displaying at floor.

Repeat. Bill - at beginning of real O - is almost closed.
Starts to open with notes as O → OL. Then, I think, tends to be less
widely open at the very bottom of OL.

Major pair 6:35 starts to break up quickly



O attributed

Almost complete long call given from pure O posture!

May 29 II



Shape of head during O.



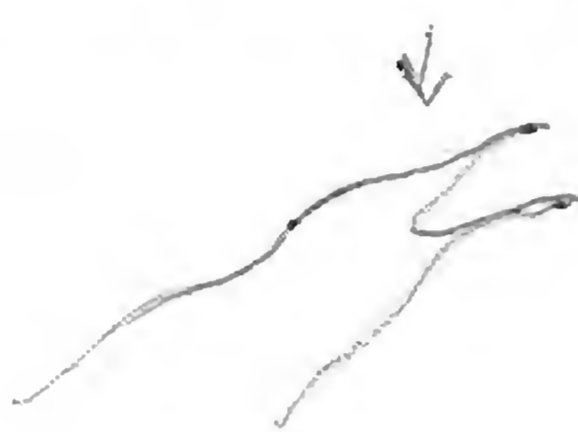
Alarm Call can be given from "low-intensity O" posture.



Post-cop display. ♂ brief V. ♀ nothing.



Nevertheless, bill is sometimes widely open during brief O postures.



♂ on water. Swimming after ♀. In L.



uttering "ooooooooouh oooooooooouh" pretty constantly. Interspersed with HF's, O's, etc. What is it? Indication of CC display, ♀, in aux V and then flies off @ 1:56.

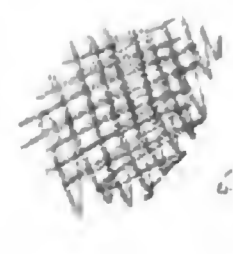


♂ does V-HF-V-PAE-V. ♀ nothing.



Interesting copulation. ♂ mounted 4 times before mounting again for an apparently successful attempt. Each attempt preceded by mutual FB. ♀ from hunched, definite T movement, just like (O) - T. Couldn't see if her bill opened. ♂ from semi V, definite T, just like (O) - T, bill opened at least during some movements. ♀'s FB, interspersed with attempts to peck at ♂'s bill, or to grasp it in hers. ♂ usually began Cop Call as he mounted. But during one of the earlier unsuccessful attempts he continued T on ♀'s back for some seconds, before beginning Cop Call. Noted also that ♀ sometimes continued FB after he mounted, always irregular. Also, more important, ♂ definitely pecking downward at female, fairly and frequently, even when she made no effort to resist. Never any post-cop displays.

Rain, rather heavy, 7:12.



Cop Call and Attack Call are certainly very similar. Most obvious difference is that Attack Call is much louder and more penetrating.

May 29 III

Difference between *Opus* call and ordinary ground song call is
commercially present. Just usual
Rain getting harder 7:18.

Utter call being constantly uttered by ♂ D, apparently. Most
peculiar. Couldn't see the object of his attentions (♀ D was standing peacefully
beside him and he was facing away from her). Standing in an *Opus* posture,
with "crest" very prominent, bill moderate open but not, visibly moving
more than a fraction 7:33.



This seems to be a further indication that *Opus* is relatively
aggressive.

Another cop attempt without any obvious post-cop hostility.

Certainly known to see any females visiting males this morning,
but some males still appear to be unmated.

♂ C visited by one ♀. M.C. ♂ does U-T-T-U-T-U-HF-
♀ does U-T-T-O-T-U-HF-U - then several ♀ levels. Both
♀'s stand in *Opus* U. ♂ stands in more aggressive U, doing also
three or four T's. He faces first one ♀, then the other. Suddenly both
♀'s fly off, ♂ relaxes immediately 7:44. Then he flies off as rain
comes down harder than ever.

Fem (*fortis*) attacking something on water. Swooping
and rising great distances. Wings beating constantly. Just like, but
more extreme than, the Franklin's swoop-rise & attack pattern.
This is presumably common to all lands, or, at least, all the smaller lands.

Back view of wings during leap



not very bright

May 29 IV

Better view of same



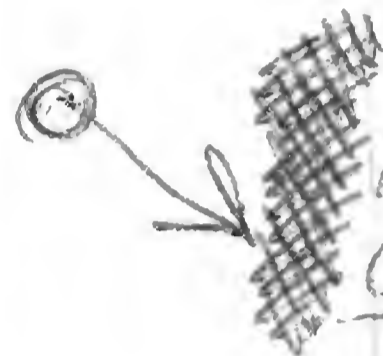
only arm, not hand, raised.

♂ attacks the ♀,

After mutual display at or near X the ♀ flies off, the male then flies off, circles round and round giving repeated

Change calls

Rain stopped now, temporarily

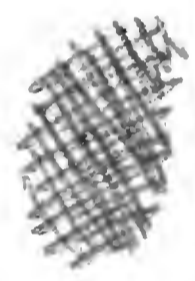


M.C. at X. ♂ does V as ♀ lands then O, ♀ O, ♂



attacks ♀ 8:08

In case I have forgotten to mention earlier, the change call may be given by a bird flying swiftly but showing no sign of any swoop.



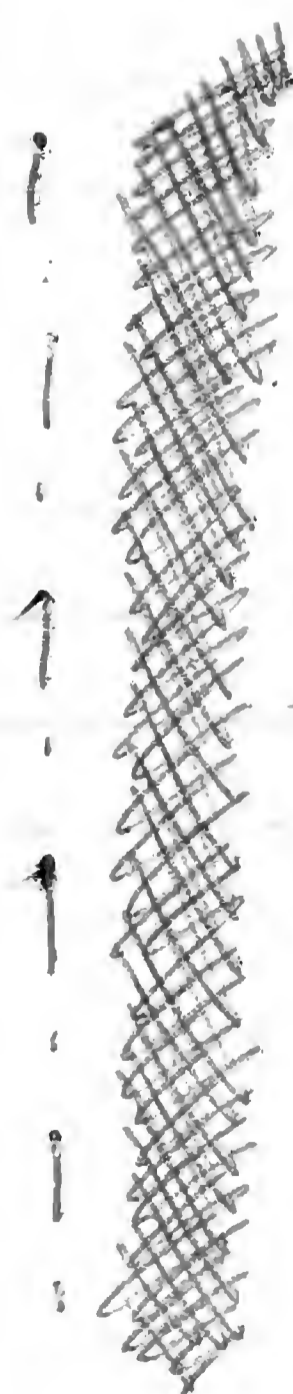
C given change call

at musth



come in

Again single bird, in Doree, giving that attack call in O performance. Quite definite and unmistakable



This time, although the head feathers were raised, to give rounded high forehead, the individual feathers were not visible as such. Also, this time the O was lower than before. Call came in bursts.

sort of business followed immediately by vigorous attack on musthants.

May 29 I

Things very dull now - 8:26

C certainly seems to be unmated again.

Very close view of cop and egg behavior. ♂ Mutual FB. ♀ from H. ♂ from V. Bell definitely opened, usually during T movement. A mounts. Attached third bird. General ruffle. Mutual FB begins again. Again attached by third bird. General ruffle. Attacker flies off. Leaving ♂ & ♀ sitting placidly side by side. (Call this pair AA)

Several interesting things about this party. Postures with



Definite "raising of crest". Distinct feathers distinctly visible. Also attacks call exactly like ~~the~~ high intensity, shriller, Cop. Call. Does this mean Cop. Call is aggressive. Must check crest feathers during copulation. Also (FB) call is apparently exactly like the "harsher" OL (T) calls 8:50.

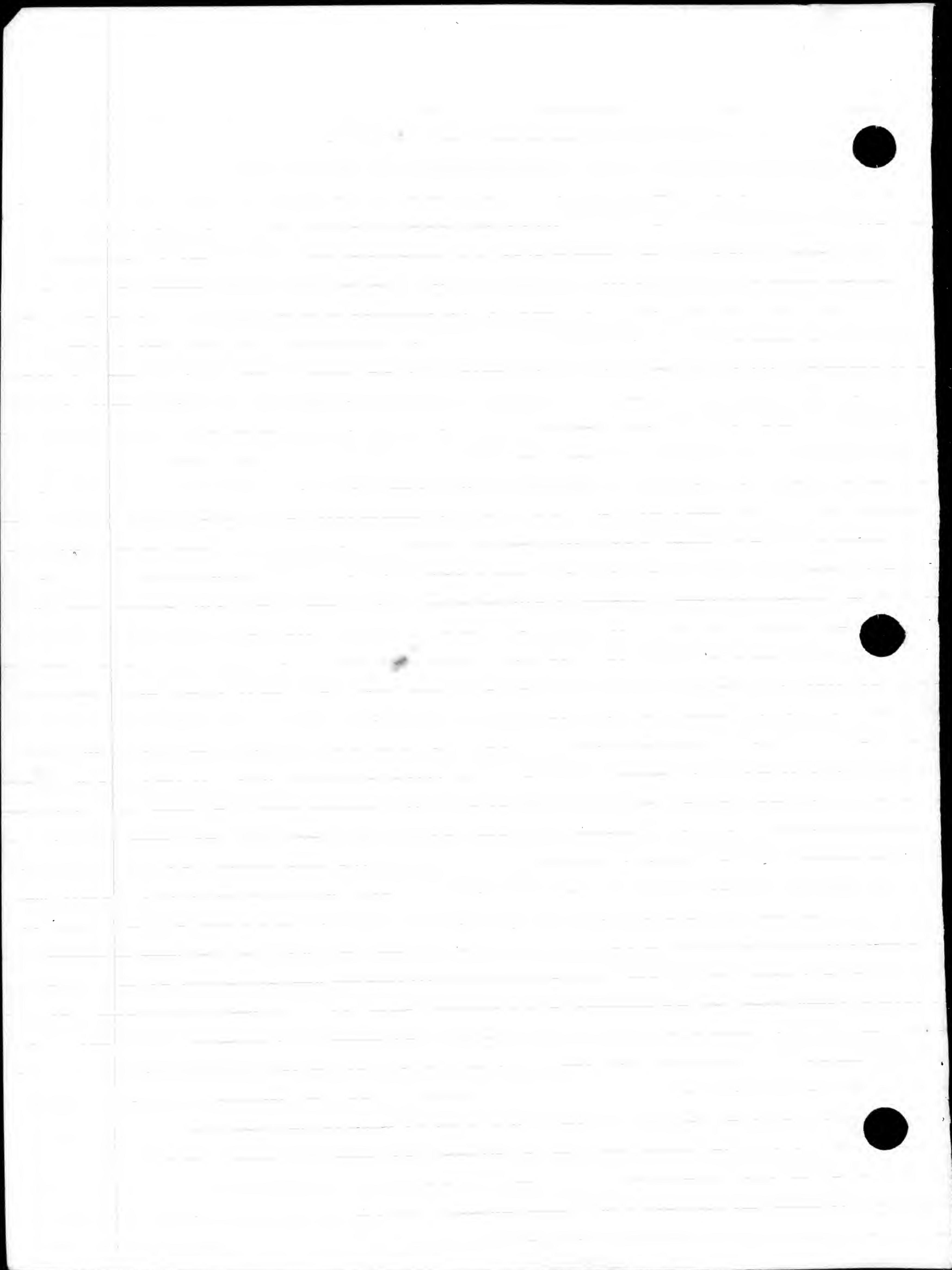
Another near view of fear posture.



M.C. at C. ♂ does V-HF-O-OL-OL-V-HF-OL-V³

♀ does V-O-V-HF-V ♂'s V's obviously more aggressive than those of the ♀. She flies off. ♂ does O - similar flight. - ~~with~~ with LCN's. Back almost immediately 9:02.

Leaving now. So pete can come in.



Sunday
May 30

Leave Colony 5:40. Cloudy. Very strong east wind. Takes
me a long time to get into level. Cold. Very cold
C down 5:43. Most birds settling. Then another game 5:45.
Breaks up fairly quickly.

C still alone. Behaving as if unmated. When MC wither
mated. I didn't catch it as my glasses are popping

More MC's at C. One I catch. ♂ V-T-O-U-PAC-U-
pr-U. ♀ U-T-T-T-U-HF-I'-PAC-U-PAC-U plus off. ♂ does
U-flight after she goes 5:53.
C's mating can't be making much progress



Angle of body at top of extreme. A fear.
Feared almost, if not quite, as extreme as the
corresponding Bl of pattern.

C call has tendency to die down at the

peak of the fear

Another MC at C. ♂ does U-T-T-U-T-T-U. ♀ does U.
plus off, then immediately does TT. 6:09.

Some fluffing of feathers in U. Common ca.



Result is that hood is, at least
sometimes, framed in white when
viewed from in front

Am trying to break through clouds
C making long circular flights when not mated by
females. Or, at least, absent for minutes on end.

(Again, a male of C being mated by two C's. Second
came down while C was displaying with first.

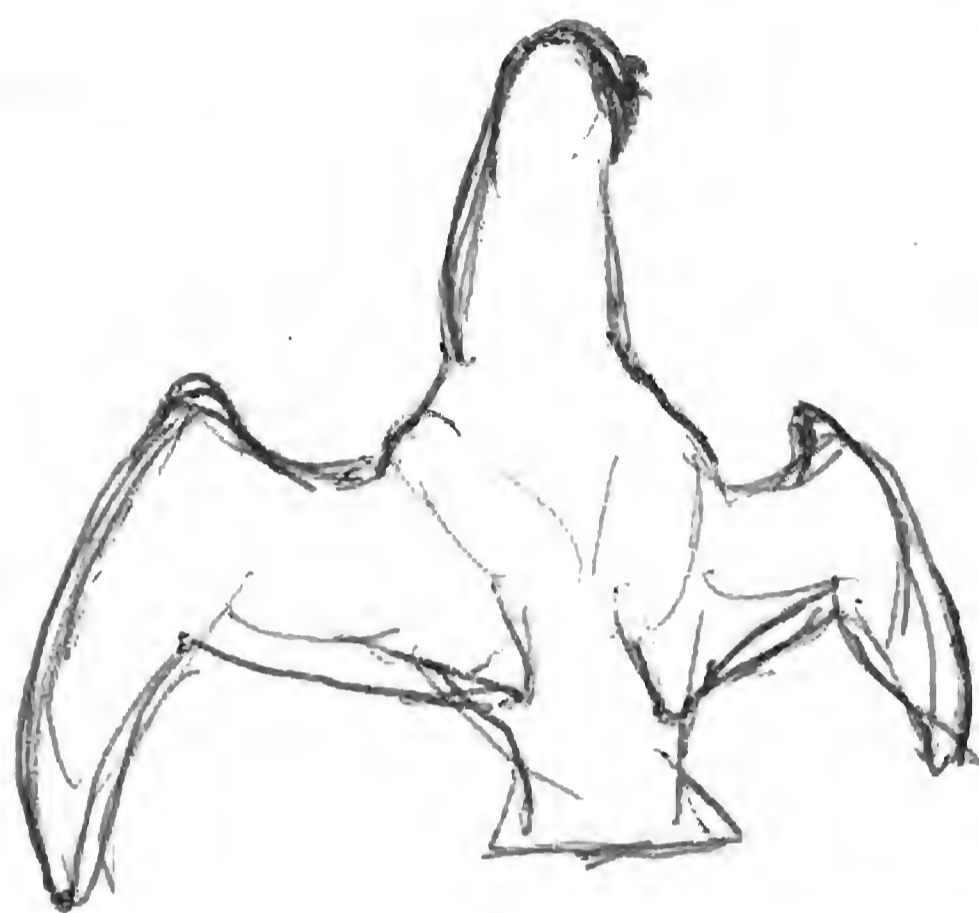
Fly dull this morning, really ca. 25

Look up to find C mated by ♀. ♂ does T-O-T-flight
as she flies away ca. 35.

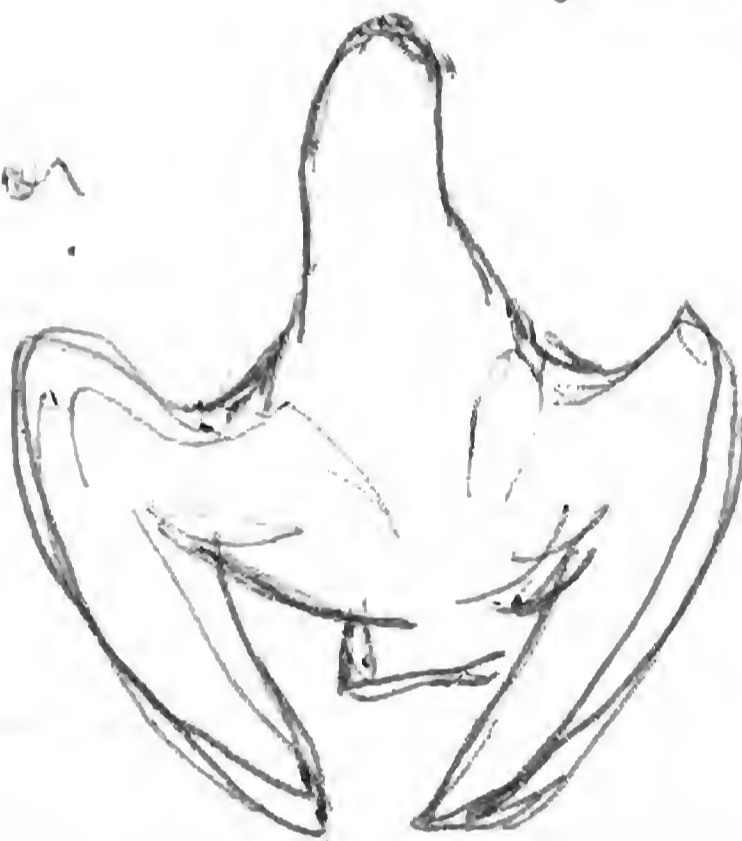
May 30 II

I must note that this is a new C; seems to have dragging leg when he flies.

Apparently an intruder has been on C station. Flies off as C (?) finally comes. Peculiar posture before hand



with, apparently, both attack and Long Calls.



MC at C. ♂ does U-T-U-HF-HF-U-attacks. ♀ does U-T-U-T-T-U-HF-U escape. ♂ does T after she leaves @ 1:58.

Raised neck feathers quite visible during ordinary O, but crest feathers are not raised



Long continued Pursuit Flight. Pursuit accelerated in chop-swoop at least four times. Brief soars. End of chase not marked by soar, Pursuit turned away 17:07

MC at C. ♂ does U-HF-U-T-U-SAC-U-PAC-U-Gpr-U-O-U-T-U. ♀ does U-HF-U-T-U-OL-U. Interrupted here, again, by arrival of third bird.

May 30 III

Again, brief indication of O with Attack Call. As yesterday.
Still dull 7:23

Two MC's at front of lude

(a) ♂ does O-U-T-U-PAC-U-PAC-U-HF-U-T-O

♀ does U-HF-U-T-U-HF-U

(b) ♂ does O-T-U. ♀ does U-HF-U flies off.

Peculiar shape of head during some O's.



net effect is to make bird appear to be more small-headed (if possible) than usual.

A really violent fight between neighbors. First I've seen. Fight itself silent. Then separate, one returns to the territory from which, presumably, it had departed. Lots of threat. Including some head-down with "oooh" sounds which I had interpreted as ♂ feeding call some weeks ago. 7:32



Confirmation!
Head shape during the two types of U's

Extremely quiet again 7:52 Birds leaving, presumably for feeding grounds. Nope. Birds again. Nope. Off again. Etc 8:00.

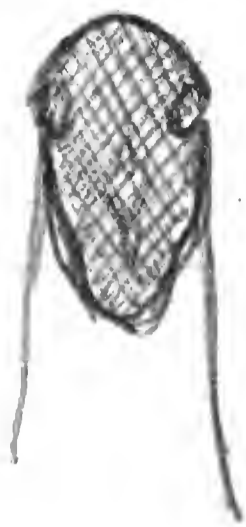
So many birds like all the B's and A's, have left the area of the lude since last week that I think that this species, like the B.C.G., must often change territories after pair-formation

No sooner and than I get a bird on water, displaying, where the BBB or By bird was. 8:15 Flies off again unprovoked though.

Bill definitely closed at top of soar.

May 30 IV

Wavy scribbles



shape of hood during air U or slight O.

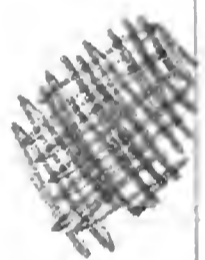


shape of hood during egg O

Now C seems to have a mate with whom he is on the
out of town 8:40.

General game as a Marsh Hawk flies overhead and is
attached 8:44. Breakup quickly. Get another pair 8:46.
Breakup

Sex gone. Wind rising again



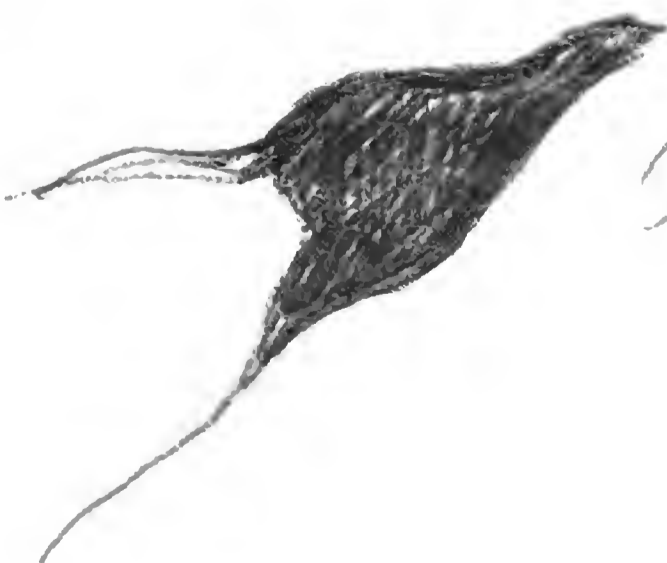
Unsuccessful cop. attempt. I did not have a
noticeably raised. No post cop display.
Another example copulation being interrupted by third
birds. 8:52.



Leaving 9:00.

Monday
May 31

Amie colony 7:40 a.m. Cold East Wind cloudy. Has been
raining. C back by 7:42. New Downy GC's



Beginning I was
this effect

all at C2 May 31, II

* 2

M.C. at C. (still same level) ♂ does U-HF-U-T-U-T-U-U-Cpr-U-Cpr-U-U-U-T-T-U-PAG-Cpr-U. ♀ does U-HF-U-T-T-U-T-T-U-U-U-U-Cpr-U-Cpr-U-U-Cpr-U-U-Cpr-U-U-U-T-T-U-PAG-Cpr-U flies off. ♂ in U, flycatch.

* 2

M.C. at C2 ♂ does U-HF-U-T-U-PAG-U. ♀ does U-HF-U-T-U-U flycatch ♂ does U-T-U-U flycatch after she goes. 3:03

Peculiar. After the above M.C., the C station was deserted for a few minutes. Then two birds back, landing at same time, but not too close together. ♂ (premium C2) and ♀. ♂ unmed. relaxes, ignores ♀. He, however, does a massive series of T's, interrupted by U's, O's, and one Cpr. He shows no unmistakable sign of FB, making no attempt to approach the ♀, or to grasp his bill. He eventually flies off to water. He remains on station, being occasionally C's to other flying birds. She then flies off himself, going to ♂ at left, belonging to pair I have been calling II. He doesn't go too close to him, but they show little hostility and quickly relax. He may very well be D2 3:27.

Interest of the above incident is that ♀ did an unusually large series of T's and yet did not seem to be particularly afraid. Some of her U's were quite big. T must contain but a slight preponderance of B, if any.

Her T notes, incidentally, were unusually shrill. C2 is now back on station 3:32.

3

Post cop display of U. ♂ U-HF-PAG-U.

♂ standing beside ♀. Does T-T-T-T-T-T-T (from U) - U-Cpr-U-PAG-U-T-T-T - head down with "woof woof woof" - U - flies up with attack call to attack cost. ♀ stands in U (rather anx.) - flies away when he flies up.

M.C. at above spot. (D or near D). ♂ does U-T-U-HF-U-T-T-T-T-U-HF-HF-PAG-U. ♀ does U-T-U-HF-PAG-PAG-U - flies off. ♂ does O - flycatch after she goes. 3:40

May 31 III

Copulation, apparently successful, in distance. ♂'s crest not noticeably raised. Post-cop display of ♂.

♀ begins collecting n.m. shortly after the above cop attempt. Brings it back to ♂, who does T-T, both sides. Then the same performance is repeated.

Another copulation at another pair. ♂ on ♀, young beautifully grimy. Cop. Call, when another bird flies low overhead. ♂ lifts head, gives Attack Call. As far as I could hear, the "attack call" differed from the "cop call" only in loudness. The ♂'s crest was possibly slightly recessed during the Cop. Call, but this is very debatable. Certainly not very conspicuous. Post-cop display: PAC-V-HF by ♂. 9:00.

Came 9:09. Plane? Breaks up fairly rapidly. Then up again. Then up again. Breaks up fairly rapidly.

Just part of D with bill absolutely closed.

By back ed water 9:12 Down in occasional of C.

More grimy, and I find that the cause of stall is in Grimy Hawk.

♀ grimy attacked.

♀ on M.C. on water. ♂ V-T-DL-T-V-HF-OL-T-P-OL-T-T-V - large call in semi-V - semi-D - Attack Call - attack on coast. ♀ does V-T-DL-T-V-DL-HF-OL-T-V-OL-T-V. - flies away when ♂ gives attack call - 9:23.

Two M.C.'s at C.

(a) ♂ does V-T-DL-T-V-HF-OL-V. ♀ does V-T-T-OL-T-T-V-PAC-HF-V - flies off (♂ obviously more agg than ♀)

(b) ♂ does V-T-HF-V attacks ♀. ♀ does V-T-T-HF-V.

Must say something about circular parading. Often conspicuous on land. One bird walks around the other, or both walk around each other. If only one does it, it is usually the bird under the greatest apparent "strain". Most perfect case I have seen was the preceding M.C. at B₁ on water. Both birds circling, perfectly even, around one another - at about the distance of a foot. A perfect binary system.

Dispersant again 9:35

~~Dispersant again~~ Little circular flight by solitary male is accompanied by unmistakable, high intensity ("quavering"), Charge Call.

May 31 IV

1954

Bill attacking something on ground. Repeated swoops and runs (with beating wings) Peculiar call - rather intermediate between Attack and Charge Call

Might be transcribed, at least, as "ku-ku-ku-ku" etc. Sound rather plaintive quality like the Charge Call. 10:02

My drawing, incidentally, is fine for posture at top of the "attack note"

Posture at top of "charge focus"



M.C. at C. A does U-T-HF-B-T-HF-B-HF-T-T-U.
Q does U-HF-U - flies off. A does OL-T - flight after she goes
10:14.

!! Bill open during glide calls (closed as much, at least, as I have drawn it)

A is standing giving repeated & numerous Charge Call notes. In posture common.



Interrupted by several PAC or preening movements - not very strained. Then OL - completely relaxed preening. Can't see the object of his attention. Probably "D Q", a few feet away. If so she's taking it very calmly. In fact, she isn't responding at all.
10:29.

Clearly it's getting no warmer - fast. A little light rain starting. Leaving 11:40.

Tuesday
June 1

Arrive colony 4:30 a.m. A little more clear sky than yesterday, but still cold easterly wind and some cloud.

C₂ down by 4:33

D back also, but that's about all - of the birds I can observe

4:45

Transcription of that aerial "C-AC" (intermediate) (see yesterday) should rather be "tuh-t-t-tank"

Shape of hood in air. V.



More birds, many more, seem to be coming back to the colony - rather than leaving it - at this time 5:01

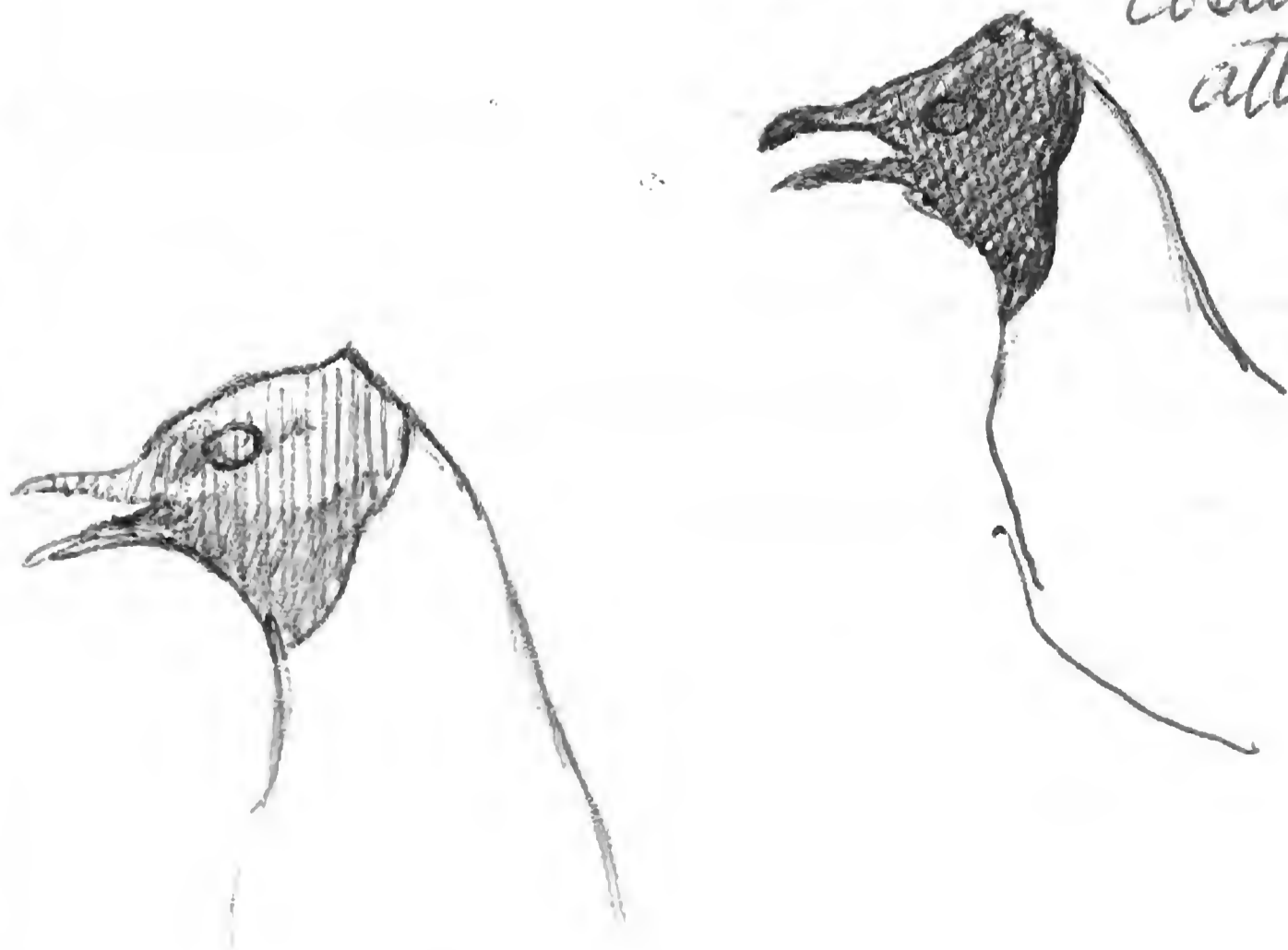
Swoop-hooping rise with "C-AC". Repeated again and again. At something on ground (as inevitable?)

Well Well Well: ♀ ♂ at A. I miss original

MC. ♂ flies off. Back. MC of ♂ U-O-PHO-U. ♀ U-HF-U-PHO-U.
♂ flies off. Back. MC of ♂ U-HF-U-PHO-U-CPR-U. ♀ U-HF-HF-HF-U-PHO-U. ♂ flies off. Back. MC of U-HF-U-CPR-U.
♀ does U-HF-HF-U. ♂ flies off. Back. MC of ♂ U-HF-U-O-U-CPR-U. ♀ does U-HF-U. ♀ flies off. ♂ follows her. ♀ goes straight to X male and displays with him. MC of ♂ U-O-T-O-U. ♀ O-U flies off.

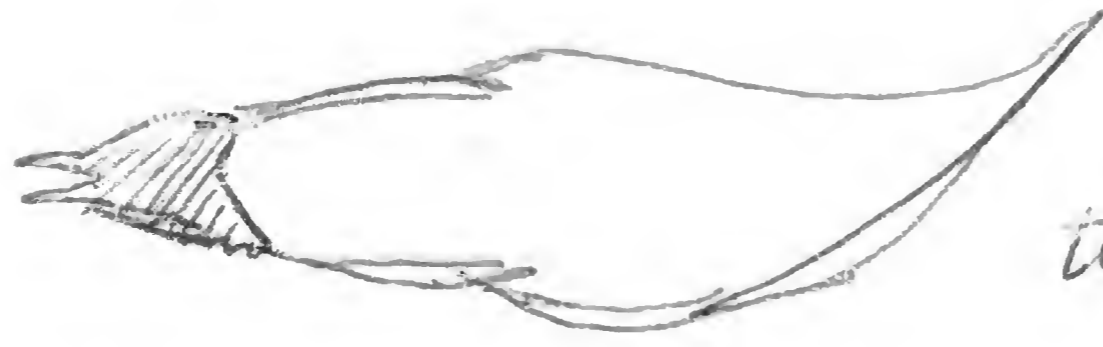
D stunts in posture common ca. giving charge call.

Changes to attack call and then attacks intruder 5:18.



June 1 II

Pardal L forlute 5:35



On land. (Very reminiscent of the posture more frequent on water)

Same bird (call it D D), after usual low call - D perform on ground, goes down into a low posture, giving muffled sounds, and then pulls up and pecks at (repeatedly) several pieces of w. m. (Think I have seen this before - earlier today)

Let's go on now - 6:15, but nothing of interest. "Ac" call has a thin, high, wailing, pulsatory, almost rattling, quality at times.

MC at C. ♂ does OL-T-V-HF-HF-D-OL-T-D-HF-V-
pecks female - D-OL-T-V-cpr-D-cpr-D-pecks female ♂ does OL-T-
V-T-HF-HF-D-OL-T-D-HF-V - flies off ♂ does V-T-OL-fly off
after she goes 6:35

Considerable competition for C station. There is very often a male (s?) on this station, doing G.C.'s at flying birds, when C2 is away. Always leaves hurriedly when C2 returns.

Several hours seem to confer an advantage on their owners. - This morning, for instance, the only birds that I have seen visited are A, X, and C2, all on marked grounds. D, DD, and E, all displaying vigorously, have been ignored.

Sam gone now, 6:45, and it is getting colder - if possible. C2 now has ♀ he has almost accepted. He is still doing lots of V's - HF's - cpr's, plus vicular flights, but she is quite relaxed. Usually does brief V-HF when he returns, or when he does some G.C. at flying birds. She also occasionally joins him in G.C., but she keeps a better than he does, seems to follow his lead 6:56. This sometimes for a while, then C2 is attacked by neighbor (or probably) and ♀ flies off. This is the first time I have ever seen C2 attacked by a neighbor while he was on station. Presumably due to presence of ♀.

MC at B4, on water. ♂ does OL-T-V ♀ does OL-V flies off. Action in V, fly off. 7:02. B4 back inland.

June 1, III

2 MC's at C

(a) ♂ does OL-T-T-V-HF-Q does OL-O-U-HF-V.

(b) second ♀ arrives and just leaves. ♂ does V-HF-V-

Cpr-Cpr-Cpr-V-attacks ♀-OL-T-T-T-V-attacks ♀. ♀ does OL-T-V-HF-HF-V-~~attacks~~ HF-HF-V flies off. Male then stays in V.

Another MC at C. ♂ does OL-T-V-attacks ♀. ♀ does V-HF-flies off ♂ does T after she leaves 7:05

Another MC at C. ♂ does OL-T-V-O-T-T-T-Q ♀ does OL-T-V-HF-O-T-V flies off. ♂ does TT after she goes.

Pause 7:12. Pause? Breaks up fairly rapidly

M.C. at F. ♂ does OL-T-T-T-T-V-T-V (with CC). ♀ does OL-T-V-HF flies away. ♂ immediately flies up, but does not follow her. Circles with CC.

Is the "CC-AC" call higher intensity than AC? ♂ has been attacking coast with Swoop-Rise and "CC-AC" then lands, gives a burst of AC's, and then subdues 7:23

Pause at Frite. MC. ♂ does OL-T-V-OL-T-HF-V ♀ does V-OL-V then both attacked by another bird. Later apparently F himself.

7:35 What seems to be the initial stages of pair-formation at D. ♀ comes down to join ♂. Very lengthy M.C. ♂ does incredible series of OL's, O's, T's, V's, HF's, PAC's, and Cpr's. Also one Clam Call. The frequency of T's and Cpr's was particularly noticeable. ♀ also does very lengthy series of patterns, but shorter than that of the ♂. Frequency of HF. Relative lack of T. A considerable number of PAC's contacted with few Cprs. occasional O, OL's, and V's. ♀ relaxes, begins to preen in a relaxed fashion. ♂ relaxes somewhat, but continues displaying at her - in bursts. He also continues C.C. in which he is joined by the ♀ (but rarely). He then gives a, attacks neighbor, circles back, reforms ♀, who has remained prominently behind. Again mutual M.C. Much as before, but longer. All except ♂'s T which were relatively, and perhaps actually, more numerous. Also relax in some fashion: ♀ completely, ♂

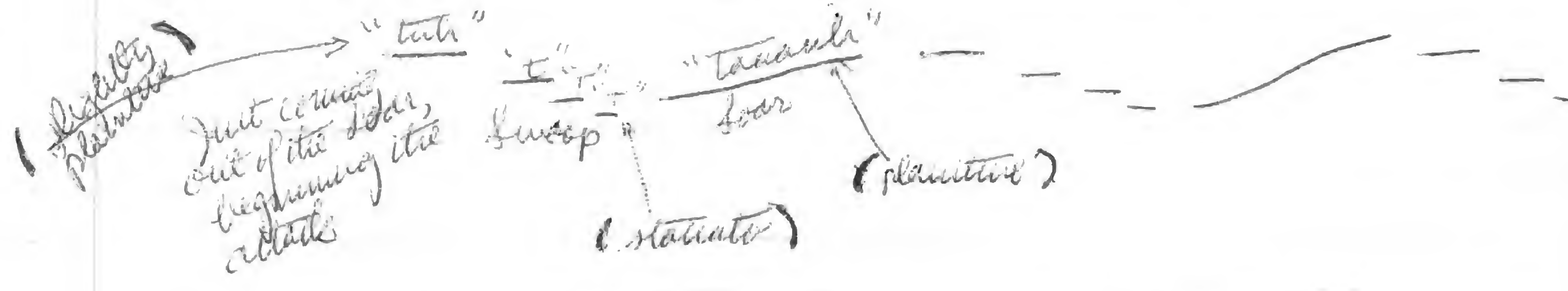
June 1, IV

partially. - then, finally, it rolls by side preceding. I left it broken up by coat. General ruffle. Eagerly in neighborhood involved. When the dust settles. Dis alone 7:47. ♀ has not returned by 7:53.

Excitatory neighbor with AC, after attack returns to station with brief CC. 8:08.

Another CC, earlier, given from brief "low-intensity", but quite definite O.

Have just seen performance at A that does, I think, explain a good deal about the "CC-AC" performance motivation. A was attacking a coat which had climbed his hind at home. Aerial attack. Up and down. Mostly, but not completely sweep - fear.



Things relatively quiet now. 8:24. Sun shining very brightly. No wind. Wind the same.

→ ♀ ~~from~~ nothing

Leaving 8:48

June 3

Amie new site colony 5:22 a.m. Gulls all around. Pete puts me in back. Warmer, less wind, fewer clouds than previous day.

Gulls settling fast, even right back hole, 5:25. Some still a trifle nervous.

Most pair settling peacefully. Two cop attempts. Male's head comes ca



No conspicuous crest, but an angle.

No post-cop display at one, apparently successful. At the other, apparently unsuccessful, ♀ does FB-T 5:35.

Another cop attempt, much closer. Noticed that ♀ gave LCN's, one T, while ♂ was mounted. He also pecked at ground, looked adjacent like PAT. Cop app. unsuccessful. Post-cop display of ♂ V-HF, ♀ T. Stared a minute. Then ♀ begins to collect m.m. Then ♂ on collecting trips. ♀ begins to rape, then into S. n. b. when ♂ dump material. (This pair already has quite a massive nest)

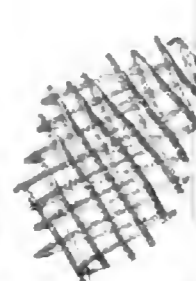
Lots of examples of AC from O. Still can't really distinguish sound from Kop Call.

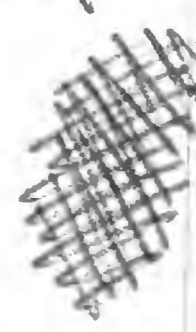
Attack call is really remarkably common - as shown by many birds, obviously furious, but not so furious enough to get off the nest.

Another good view of copulation. ♂ on ground doing J.C.'s. Does one or two. Then ♂ does V-T-T-T-V-Cop-V-T-T. ♀ does the same (exactly). Then they continue T-ing, side by side. ♂ rather more frequent and vigorous than ♀. She T's in a semi-bunched posture. No bump his head up to V, between each T. Amounts. Usual behavior, except that he gives one T in the midst of the cop. Apparently successful. ♂ slips off. Post-cop display of V-HF by both (much more extreme in ♂). Then ♀ immediately picks up m.m.

Actually the Cop Call seems to be weaker, less shrill and penetrating, hoarser or more throaty than the Attack Call. Still very


June 3 II

!!  very similar, however. Rhythm identical or almost identical. Cop call could be transcribed as "Keh Keh Keh Keh Keh Keh Keh..."


!!  A.C. before attacks and after attacks. At highest intensity of the attacks, or, at least, when the attacker reached the attacked, the notes became a trifle higher, shriller, more scream-like.



One "woof-woof-woof..." posture (as part of A.C.). Very reminiscent of the Forward. 6:10.

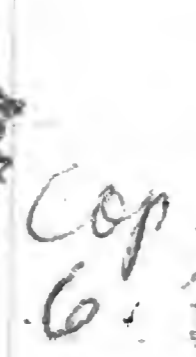
!!  Attack Call, like Cop Call, can be transcribed as "Keh-Keh-Keh Keh Keh..." or "Kuh Kuh Kuh Kuh Kuh Kuh...". When accompanying actual attacks becomes "Kuh Kuh Kuh Kuh Kuh Kaa Kaa Kaaa Kuh Kuh..." Definitely a more noticeable call than Cop Call. Can sometimes be even more rapid.



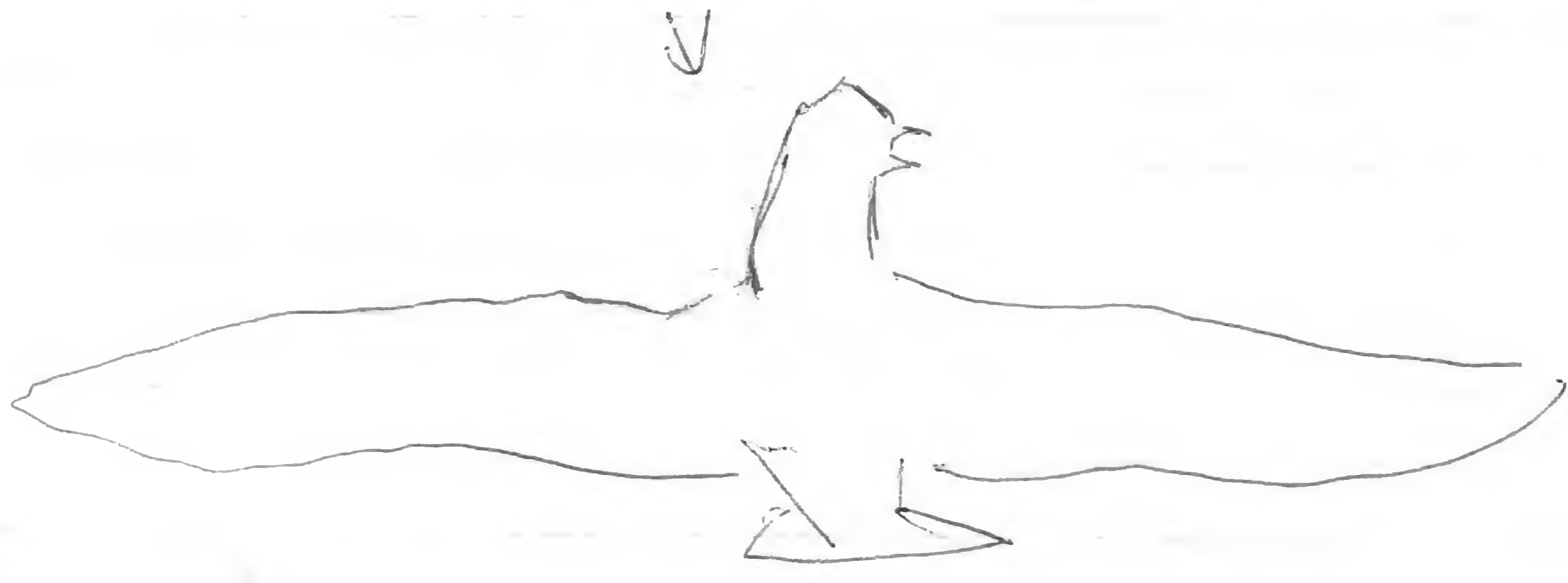
 Attack Call head shape

And in incomplete plumage, on station, doing constant GC's - call it J.

Post-cop display of ♂ J

!!!  Intert. cop. Both premium ♂ and premium ♀ doing Cop Call or attack Call at the same time. Premium ♀ stops fairly quickly. 6:35

Attack Call posture Appeared just after attacks.



June 3 III

Still some other unmated males around - apparently

Why no CC's? I haven't heard one this morning.

Cop in pair that don't seem to have set up. Preceded by
mut. T. Male mounts and begins with typical attack call
Gradually changes to typical Cop. Call. Changes back to attack call
when ♀ struggles particularly violently, then back to Cop. Call.

Later part of Cop. Call with closed bill ♀ gives AC twice during
cop, each time when a stranger was present. Post-cop
display of ♂ U-HF-HF-U-O-U. ♀ PAB-T. 6:52



generally rough all over

chin feathers also raised during
AC. - occasionally

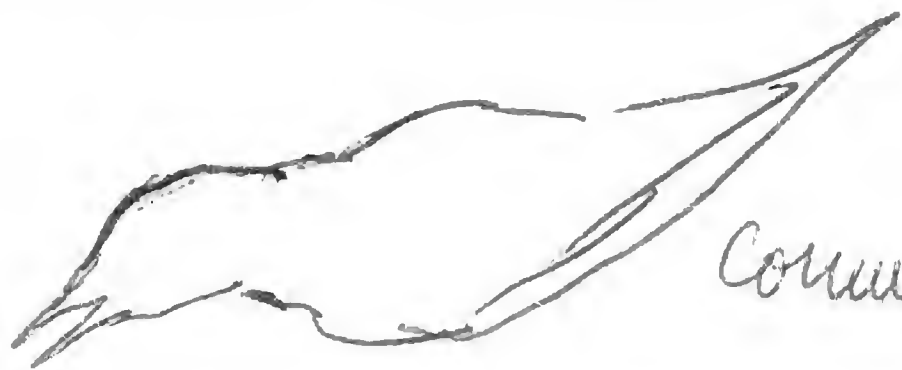
Lots of violent fighting. Almost always very brief.
No sign of Choking yet. 7:05

A number of "oooh" calls heard while Repruge seemed
to be occurring in neighborhood.

Post cop display ♂ U. ♀ V

Most of the birds asleep 7:12.

Ala! N.R. at rear front nest. M. ♀ sitting. ♂ stands
beside her, head & bill inclined downward, uttering series of ♂ AFC's.
"oooh" or "wah"



Course ca.

♀ begins to FB, T from it.
This continues for a while,
then the ♀ gets up,
apparently to FB; but

the male just slips on the nest immediately ♀ starts non-pleased
for a second or so, then flies away 7:47.

Some quality of ♂ AFC is nearest the "woof woof woof".
Rhythm very different.

June 3 III 1/2

13 Copulation in pair incubating one egg. (Same pair, MM, I mentioned as having post-cop nest-building activities earlier this morning. Post-cop display. ♂ PAG settles on egg ~~with~~ ♀ PAG, then lots of all sorts of n.c. activities 7:48

intruder ♂ in V. Oh! Pair without nest have been having trouble with an intruder. Essentially ends by intruder and ♀ of pair flying away. Leaving ♂ in V. Then he starts to ignore C in posture common: "Wah Waaaaah Waaaaah" or "Kaaaaaaa Kaaaaa etc".



Then switches briefly to AC. Flies up. Cycles back fairly shortly. (This CC could not have been directed at any very close bird. Is this another "distance" pattern?) 8:00

Intruder ♂ does brief A.C. toward his mate, coming in for relief - with n. in 8:10



Back view of A.C. posture



Front view of same



Top, from (3/4) angle.

Oh. Bird has been doing high intensity O, then utters three apparently CC notes as it relaxes 8:27

Bill remains widely open through AC. Does open & close with syllables. But whole bird vibrates in rhythm

June 3 IV

Peculiar. What looks (and sounds?) like chobling going on at two places. Can't follow it well. Apparently between ♂ and ♀. One pair, apparently without nest, do it together.



Bills ^{& heads} moving up & down, or slightly backward & forward, in quite rhythm. ♀ lower than ♂, almost seems to be trying to get under.

him, tries to keep her bill near his, almost as if FB. Other pair, ♀ on nest, ♂ comes in on relief. ♂ adopts posture.



making up & down movements of head & bill. Maybe making sound like quick "woof woof woof" (rhythm of AC). ♀ responds by FB (as have lots of ♀'s during all sorts of N.R.'s this morning).

Both these cases of Ch. were interspersed with all sorts of obviously hostile behavior: U+HF+O+DL+T+PAG+Cpr.

If this is Chobling, it seems to be made up in part of modified AC. Same sound heard in other postures or lack of postures. 8:50

One of these ♂'s, call it N, has bitter fight with neighbor. Lots of AC. Then flies, with AC, to ♀, attacks her furiously, for several rounds. Then MC. ♂ does U-HF-U-AC-U-T-U-Cpr-Cpr-U-P. ♀ does U-HF-U-P. 8:55

N pair Chobling again, just as before. Brief.

AC posture



Feathers raised, as in strut Chobling

9:04

June 3 V

Again. Try different level.



One head shape during AC.

N pair at it again 9:17. Include PAT in their ch. Men N wander in another territory, get involved in disputes. Fly back to their own territory. Choke together. Men AC together. ♀ attacks ♂. He does D. Both V-HF. ♂ begins Cpn. Both relax 9:23

Again. N. Brunt of A.C. at something or other. Both V Both choke. Up in V. One of them T's. Both V. Both relax. Men ♂ OL-T. Both choke. And so on and so forth. (I think that their ch. bouts are correlated with bouts of roaring in neighborhood) 9:37

Quarant again 10:05

Ch (by ♂ at least) must ~~also~~ be accompanied either by regurgit. mov. or lowering of larynx. "swollen chin" effect. N have left now 10:12. But before they went, the ♂ Ch, ♀ Ch and T in apparent response.

Birds beginning to gape in heat now. 10:20

No sign of ch. Saw Male feed female at nest relief. Quite typical procedure.

N pair back 10:31. ♀ begins T and FB almost unmed. ♂ starts "ooo" "ooooah" type OFC unmed. Bends head down to ground several times. Also does a few T's himself. It's T's tend to be from higher posture than bees, but both unmed. Finally he regurgitates and she feeds greedily. Then the whole performance repeated

June 3 VI

as before. No sign of Ch. either time. Then, over after second feeding, ♂ starts Cop Call, jumps on ♀. She immediately goes into semi-H, raises tail. He however just sits. Stops Cop Call, folds wings, starts T again. Finally starts, and then has an apparently successful cop. (Cloacas in contact 3 or 4 times). Once, during Cull, ♀ PAT ♂ slips off. M.C. of V-H-F by both. Then both start to pick up twigs practically. Twice this M.B. is interrupted by Ch. Quite definite. Couldn't see that it was directed at any third bird(s). Then temporary relaxation 10:36. When I look back one of them has gone. The other preening relaxed.

Ch. might be described as AFC in AC rhythm, but probably can just be described as "muffled" AC.

♂ N back. No real M.C. Both start PAT, one about Ch., then some T's. 10:48. Again. Just the same. Again. Quiet copulation?

Seems to be some confusion. This returning N pair must be N₂. They leave the place where they have been. Fly a few feet away to what seems to be prospective nest site. Much PAT, collecting, "ooah"ing, and Ch. Occasional ♂ once rears. Then a third bird appears attacks them. ♀ escapes unaided ♂ N and ♂ N₂ fight furiously. All AC display by both. N₂ escapes, flies to other side of hutch, to another mass of floating reeds. Joined by ♀. Both using "ooah"s, Ch., and M.B. Then relax.

Pete coming 11:00 a.m.

Alone back 10:30 p.m. Put myself in hutch. Shift one nest, hoping to provoke dispute.

Gulls little moved, except for hutch nest hutch hutch, but all are nervous.

Calming down 10:36, but one bird hasn't come back to nest.

June 3 VIII

MCHR ♂ does AC-OL-AC (uncopy). ♀ does U-HF-HF

Post-cop display. ♀ ✓. ♂ ✓ ✓ ✓

Q still preening. P still asleep. Now, 7:45 Q u.c. again,
ac. ac. cc. LCN. LCN. ac.

No rain whatever much as this morning.

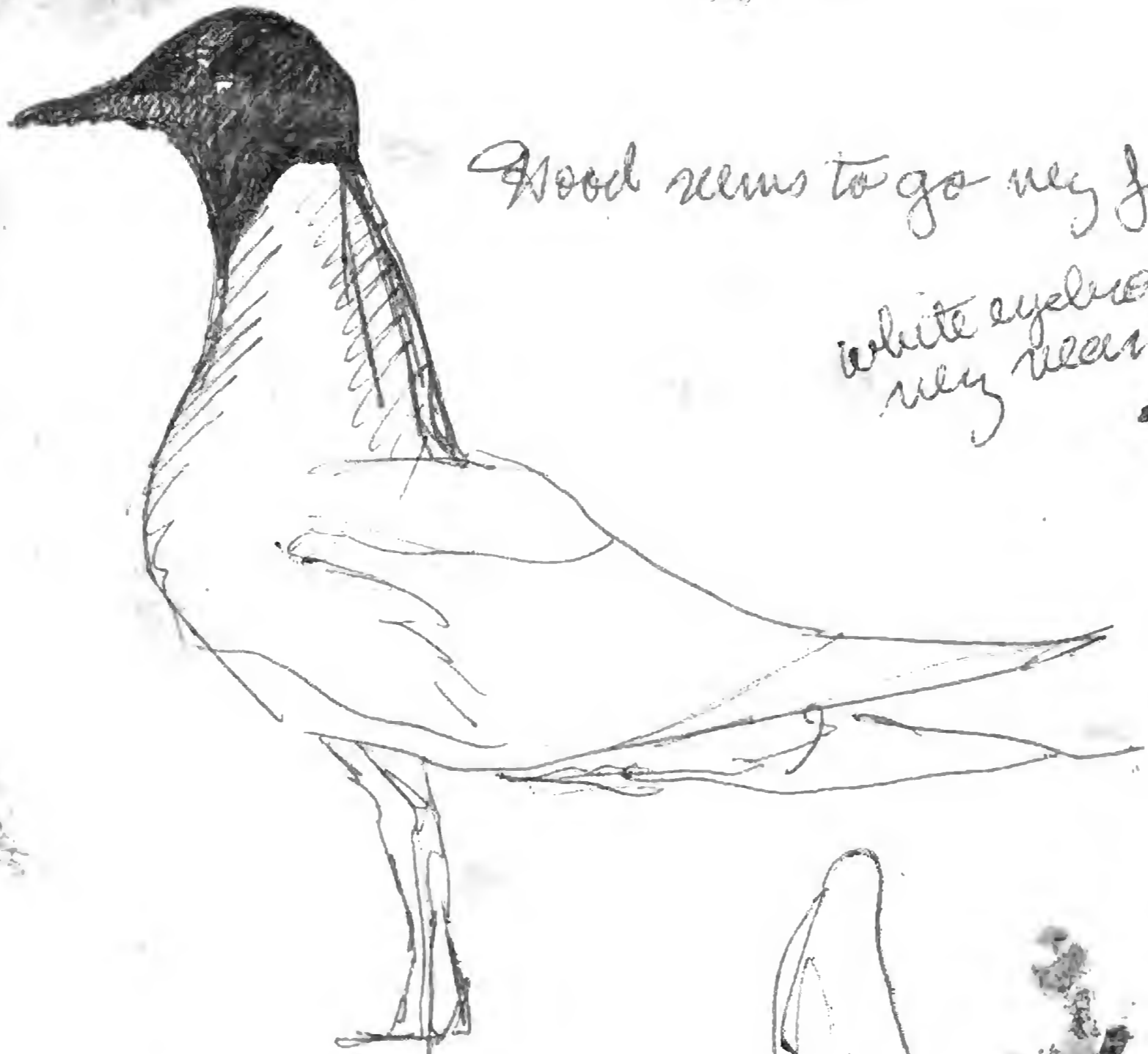
Leaving 8:08, give Q back its eggs

Friday
June 4.

Arrive colony 5:04 p.m. Calm. Warm. Slight n.e. wind.

Gulls start to settle fairly rapidly, even near ones

P. & Q. back, sitting 5:08 Young to look at different portion of colony



Wood seems to go very far down neck.

white eyeliner
very near top



See posture.

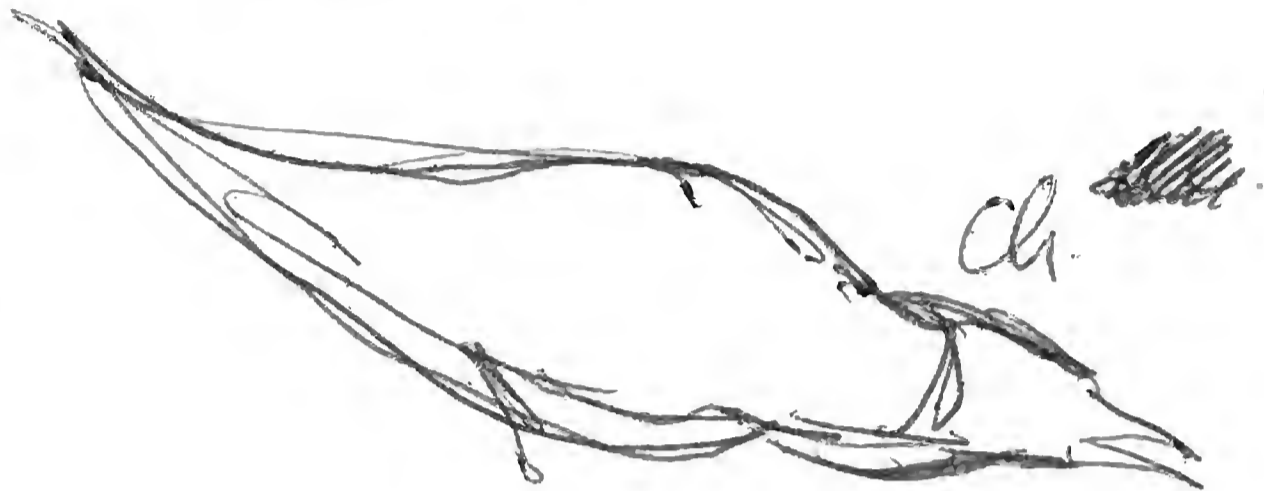
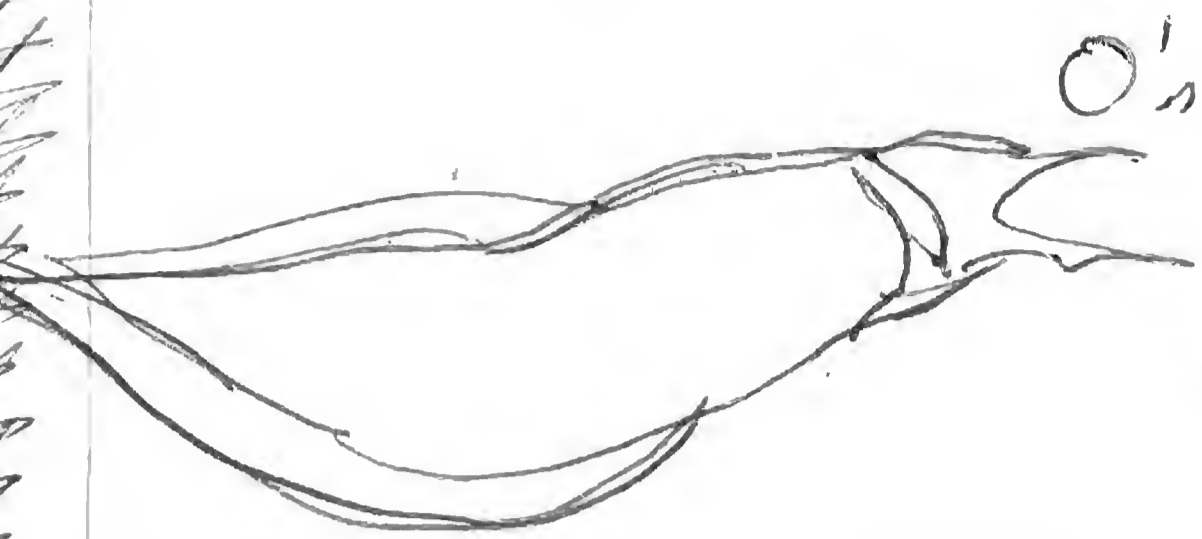
Many ♀ joins ♂ (cutty) twice. Once ♀ V-HF, once V.
♂ does nothing either time.

Another pair. ♀ does nothing. ♂ does O-OL. Another case
same pair, 5:21, where neither does anything. Again, nothing.

♂ joins ♂ ♂ does V-HF ♀ does V.
♀ joins ♂ Both V

June 4 II

One of the N's apparently display to fly, birds.



plus conventional OL's and T's 5:35



CC like muffled. (very muffled) ♂FC



Then V with HF. Alarm call in extreme Cur V. (carpi well raised) (Meaning that V-HF is less "angry" than V-Alarm call?)



Angle of neck as O, but much shorter

muffled calls are given.

Posture in which many of the



low-O just sometimes, also, in definite L CC call seems to be given, usually in rounded



Again, more L postures seen the forward 5:43



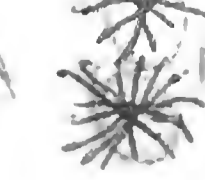
"Ch" calls don't have "perambulations" of CC. CC can intergrade with LCN's



♀ relieved by ♂ ♂ does nothing. ♀ does T-V.



♂ joined by ♀ Neither does anything

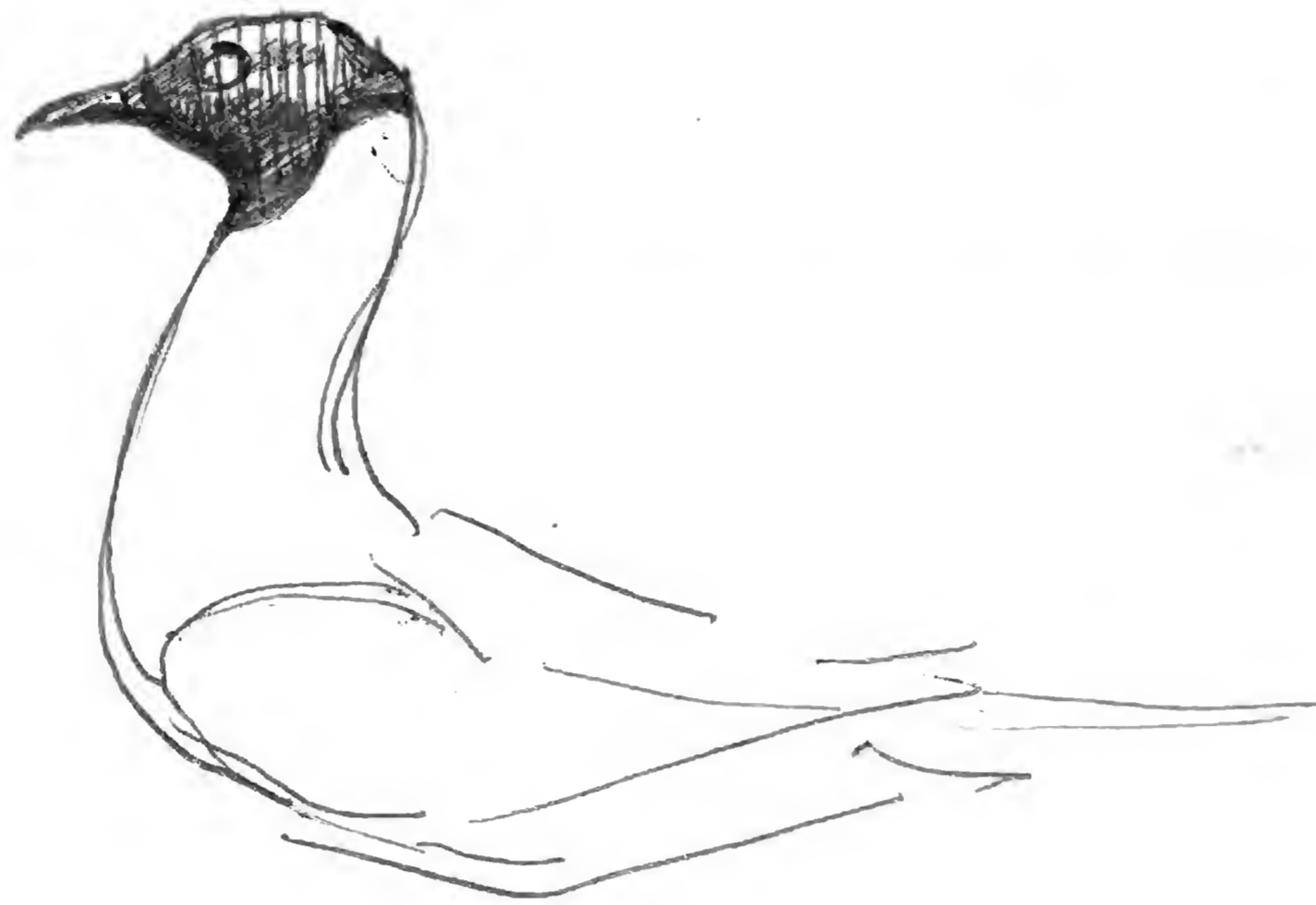


Again, Neither does anything. Another pair, same thing. 5:58

June 4, III.

C with quaver might be transcribed as "Reeereereereere"

Curve of neck particularly prominent in some U's



Some LCN's are certainly as high pitched as, and otherwise very similar to T notes

♂ joins ♀ Both U-HF-HF. Then same pair become involved in fight with intruder. After it is over, ♂ stands beside ♀, gives AC, and attacks her. 6:15

♀ joins ♂. Neither does anything.

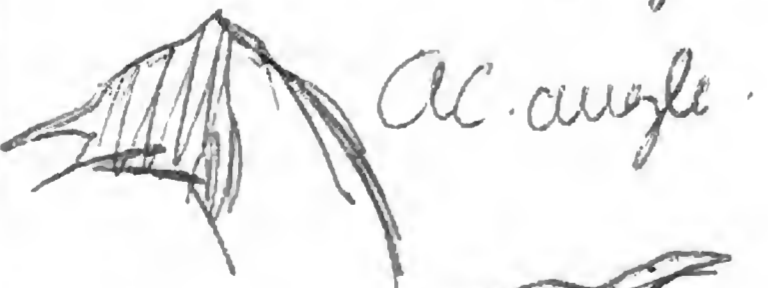
Definite "oo-ah"s by male and during ♀ C's, when he gets into U posture with neck extended forward. 6:23

NR at P. ♂ does L (with "li" and "ooah" sounds). ♀ does U-T-U.

Flight. Aggressor, after attack, retreats, then gives AC.

Victim, after aggressor retreats, gives CC.

6:28



June 4 IV



One version of A.C. (Notice back back border of head)



HF-HF

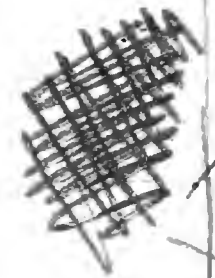
♀ joins ♂ P. ♂ does AC-HF-U-HF ♀ does U-HF-
Again ♀ joins ♂ P. ♂ does L, ♀ does nothing.



Another version of A.C.
Less aggressive? Lower intensity?



♂ joins ♀ P. No display, by either bird. Again, no display.



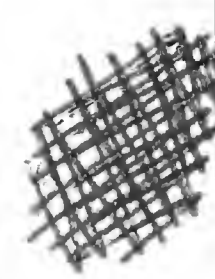
Feathers of breast & belly are somewhat raised during some AC's. Just enough to make these parts look swollen to 42.



♂ releases ♀. ♂ does U-L-U. ♀ does U-HF-HF-U.

Watch has stopped. Presume it is a few minutes before ~~7:00~~ 7:00.
Minor panic, breaks up fairly rapidly.

Not very exciting tonight.



End on nest does AC toward flying bird, then, after latter has passed on, OL-T. Good example of declining intensity.



Another good view of lower body feathers in AC. Raised almost as much as during copulation.



Don't think that any feathers are raised during

♀ joins ♂ ♀ U. ♂ nothing.

June 4 V

♂ relaxes ♀ ♂ does V, ♀ T. ♂ ch. ♀ T some more. ♂ V. ♀ T-T-T etc. Then ♀'s T become FB, ♂ starts to bend head to ground, opens ♂ FC. ♀'s efforts redoubled. ♂ regurgitates, ♀ eats. Then, immediately, ♂ slips on ♀'s back, giving Cop call or CC. Starts cop movements. ♀ struggles. Utters CC. Struggles from under ♂. Both stand a moment. ♂ walks to nest, utters, with tail wag, Sub, etc. ♀ does a few number of collecty trips ^(approx. 4) 7:35. ♀ relaxes. Starts to preen, steadily bends ♂.

Same pair, later, ♀ joins ♂. ♂ does T, ♀ V. ♂ continues T-T-T-T, gets up, Sub., settles, ♀ relaxes, all quiet again. 7:40

Then ♀ V-T. ♂ T-T-HF-T, off nest, on collecty trip, back, settles. ♀ relaxes, goes on collecty trip of her own. Back, drops it. ♂ urges it. ♀ off to collect again. Back. Drops it.

Intently MC. at territory of unmated or loosely mated ♂. Point of interest was that ♂ stood on L diagonal, uttering constant "oooooh"s and repeatedly HF. Then up, OL-T, U-HF, attacks ♀. 7:46 He flies off, he follows.

My My. There has been a ♂, N₃, near my blind all evening. During G.C.'s at pauses by I look up to see a bird on the ground, another bird loudly bends it. Newcomer does U-HF-U-HF-V etc. Oldcomer does OL - then stays in OL uttering "oooooh"s (bill closed or almost closed) with HF's. Then newcomer attacks oldcomer and I think oldcomer flies away. Remaining bird stands in U, uttering alarm calls for a while. Was this the case of one male taking the place of another? Should mention that newcomer was smaller than oldcomer. Looks almost ♀.

Newcomer then does lot of G.C.'s (flull voice) Pukes up twig in the midst of one G.C. Then flies away. 7:57.

♂ joins ♀. ♂ V. ♀ nothing

"Oooooh" during feeding is done with bill closed, except when food actually comes up.

Leaving 8:08
♂ U-HF-HF-V. ♀ V.

Saturday
June 5

Arrive colony 4:20 a.m. Clear, but looks as if weather were about to change - as it is supposed to. Fairly strong SE wind. Warmish.

Passed hundreds of gulls out hawking. Everything settles immediately, but nothing settling just 4:30.

Orientation of AC, vis a vis the opponent, is much more exact than usual in threat display. Head and neck, at least, always turned toward opponent.

Sun above horizon 4:36.

The \odot symbol for displays against an intruder, who has landed. S for solitary. V for premium unmarked. I for incubating. or done neighbor

One solitary bird, doing G.C.'s, picks up twig in ritual, then gives OL-T with twig in bill. Then drops twig, more G.C.'s.

AC before attack, AC after attack

Panic 4:46. Breaks up rather quickly

AC before attack AC before attack AC after attack
(Attacked in AC before attack) AC \odot

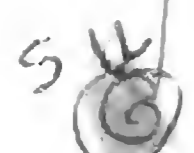
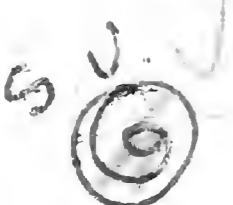
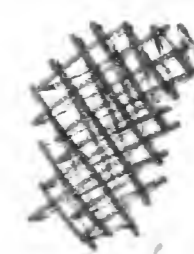
♀ joins sitting ♂. ♀ does V-HF ♂ does nothing, 4:55.

AC before attack AC before attack AC after attack

AC - chase before attack V-HF after attack AC before attack
AC before attack OL-T after attack ~~AC before attack~~ AC - fear
after attack

OL-T. AC before attack OL OL after attack (Ving
attacked after being attacked.)

m for water, before incubation stage.
a for water, with eggs, but not actually sitting



June 5 III

AC. AC before attack AC after attack V. 6:00.

Another case of a ♀ visiting two males in a row.

N3 bird, after OL at flying bird, steps in L, uttering "low-intensity Choking, type ~~like~~ sounds" "kukukukooooo kukukukooooo kukukukooooo", etc. Indagonal L posture, for the most part, but trace of more conventional Choking posture, with head & bill bent downward.

AC before attack AC before attack AC after attack AC before attack

♀ joins ♂. Neither does anything.

AC before attack, AC after attack AC. (bird in AC attached)

♀ joins ♂. Neither does anything.

♀ joins ♂. Neither does anything except a few brief pumping head movements with head & bill inclined downward. Ch. int. movs? Or, as ♀ brought in with her, is it? 6:25.

AC before attack AC after attack AC AC AC AC. AC.

Lots of birds asleep now.



Almost vertical O posture

♀ joins ♀. Neither does anything. Again. 6:40. Again

June 9 IV.

high up

Head looks small during O, duel, as a consequence, eyes are
Depression in front of eye is conspicuous, as in line in back.

neighlor, back, AC, CC, relaxes

♂, standing, female sitting ♀, gives CC, AC, attacks



CC posture. Nostrils, fluffed
Posture essentially a low-intensity

♂ releases ♀ ♂ chokes ♀ U-T-T
♀ joins ♂. Neither does anything
♀ joins ♂. ♂ chokes - chokes. ♀ U-T-OL-T-U.
♀ joins ♂. Neither does anything. Again. 6:54

AC before attack, [↓] After attack. AC. © AC.

♂ releases ♀ ♂ does nothing. ♀ does V-HF-U. 7:10.

AC before attack © OL-T-OL - AC before attack

OL-HF

♀ joins ♂. Neither does anything.

♀ joins ♂. Neither does anything.

CC posture (as above). Quite noticeable
that head down to stretch as far back as
the hood.



June 5 V.

¹⁰ AC before attacks OL after attacks. ^{5/10} AC AC ^{5/10} AC before attacks

* ♂ joins ♀ Both U.

^{5/10} AC AC AC AC AC AC AC AC ¹⁰ AC before attacks

AC can be in CC posture drawn on previous page, without trace of fluffing. Just saw beautiful example 7:31.

Head moves slowly up and down during long-maintained AC in typical AC posture.

♂ joins ♀. ♀ does T-U. ♂ does U. (♀ did AC at ♂ as he came in, presumably she didn't recognize him at first)

♀ joins ♂. Neither does anything. Again, neither does anything. Again, as before. Again.



AC posture. Scapular tract very prominent, with all feathers raised.

^{5/10} AC before attacks. ¹⁰ after attacks. PAT: 7:45.

Even some of the unmated males are asleep now.

♀ joins ♂. ♀ does PAT-U-T. ♂ does nothing.

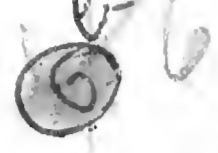
Most of the off-buds are now standing asleep beside the sleeping on-buds.

♂ joins ♀. ♂ does nothing. ♀ does OL.

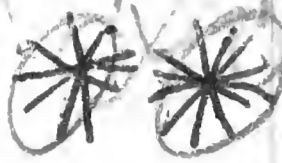
June 5 VI



♀ joins ♂. ♂ does nothing. ♀ does T. 8:02.
♀ joins ♂. Neither does anything.



AC before attack. V after attack.



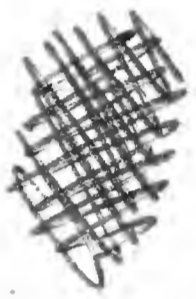
♂ joins ♀. Neither does anything. Again, same thing.

33

⊙ AC. AC. AC. AC. AC. AC.



Both V-HF-V.



Notice that white lower back feathers are also raised during typical AC posture.

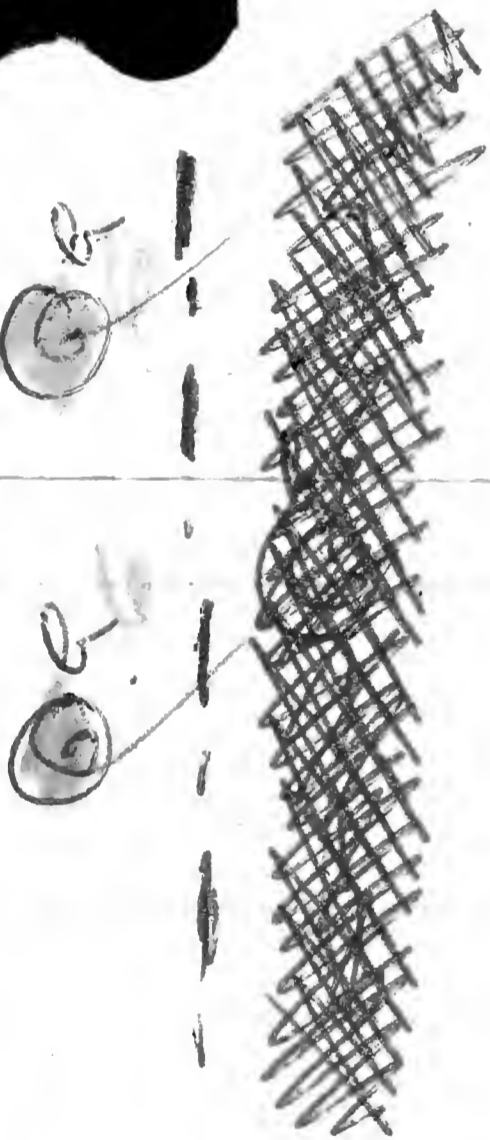


Also notice one copulation in which the same white lower back feathers are also raised. 8:20

Wind is varying in strength. White caps in bay now

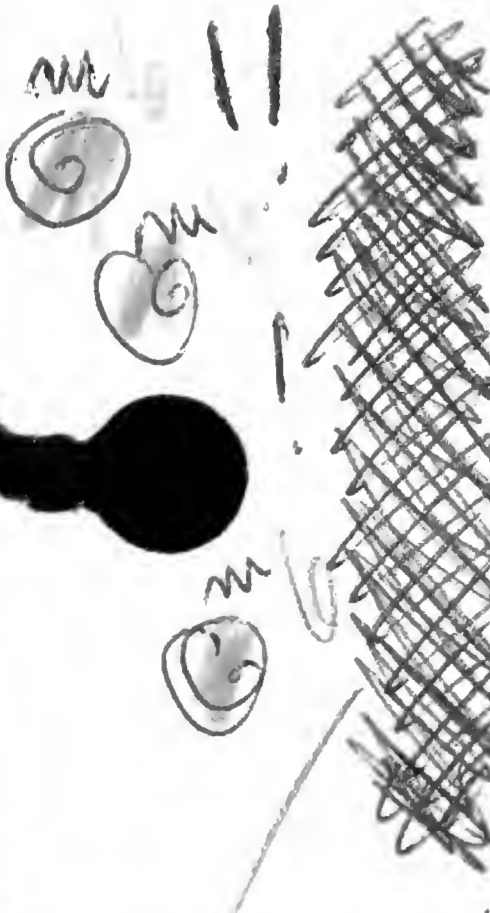
8:23

Have been watching incubating ♂, meanly repeated AC's at solitary bird nearby. ♀ mate approaches on foot. She does ⊙-⊙-⊙-AC as she comes in. ♂ continues AC. Then ♀ begins to Choke, facing ♂, diag. Ch. posture, with both "uh uh uh" and "ooah" sounds. ♂ interrupts AC. Ch. briefly. Gets off nest. ♀ starts to settle. ♂ begins AC again. Darken at intruder in attack. Later flies off. ♂ returns to ♀. Both AC, together, facing one another. Relax. ♀ goes to sleep. ♂ preens beside her. 8:26
Intruder back. Both ♂ & ♀ mean AC. This time not facing one another, but facing intruder again. ♂ attacks intruder. Intruder flies off. ♂ returns to ♀. u a d. 8:30.



N3

♀ T to ♂, repeatedly, apparently FB. ♂ bends head to ground, gives Ch. type "ooah" sound. Then does AC at flying bird. Then AC, attacks neighbors, back and V. Then AC, attacks same neighbors, back, V-HF. Then AC, attacks another neighbor. Back, pulls up n.m. Flies off in circular flight, still carrying n.m. ♀ gives a few cch's while he's gone. Back. Still carrying n.m. Bends head to ground, drops n.m., starts uttering "ooah" Ch. sounds in diag. Ch. posture. ♀ comes closer, T. ♂, after pause, gives AC again. Then momentary relaxation. 8:37



June 5 VII.

AC. AC before attacks ^{1/2} after attacks

N₃ seem to have minded temp. Occas bursts of AC's by both, at flying buds. Then ♀ begins to collect n.m., walking about buds, mostly pulling it up and chopping it. Interrupted frequently by more AC's at pansely. ♀ asleep. ♂ continues n.b., showing only trace of s.u.b. 8:45. Quite vigorous about it, but having trouble finding suitable material gradually stops. Begins to preen. 8:53.

All these birds that do AC toward near flying buds (and some not so carefully near), generally do OL toward nest not so carefully near flying buds.

N₃, after means at flies, begins to "Choke" in diag. ch posture. Joined by ♀ who does same thing, and also pecks up twig briefly in midst of Choking. Then relax again 9:01.

♀ joins ♂. ♂ ch. ♀ nothing. Again, different pair, exactly the same thing. ♀ joins ♂. Neither bird does anything

OL. SM ^{1/2} after attacks.

Getting milder by the minute.

♀ joins ♂. ♂ U-T-U. ♀ U. ♀ joins ♂. ♀ does T, ♂ does nothing. ♂ joins ♀. Neither does anything. ♀ joins ♂. Neither does anything. ♂ joins ♀. Same story. ♂ joins ♀, same story.


Leaving 9:20.

Monday,
June 7


Arrive Island Colony 5:14 a.m. Warmish. Strong S.E. wind, very overcast, looks like rain.


Nearly gulls are reluctant to come back

One down, very alarmed 5:20. Another down, same. Up again, down again, etc. All the others are down before this, quite relaxed. All except one, near, back 5:25.

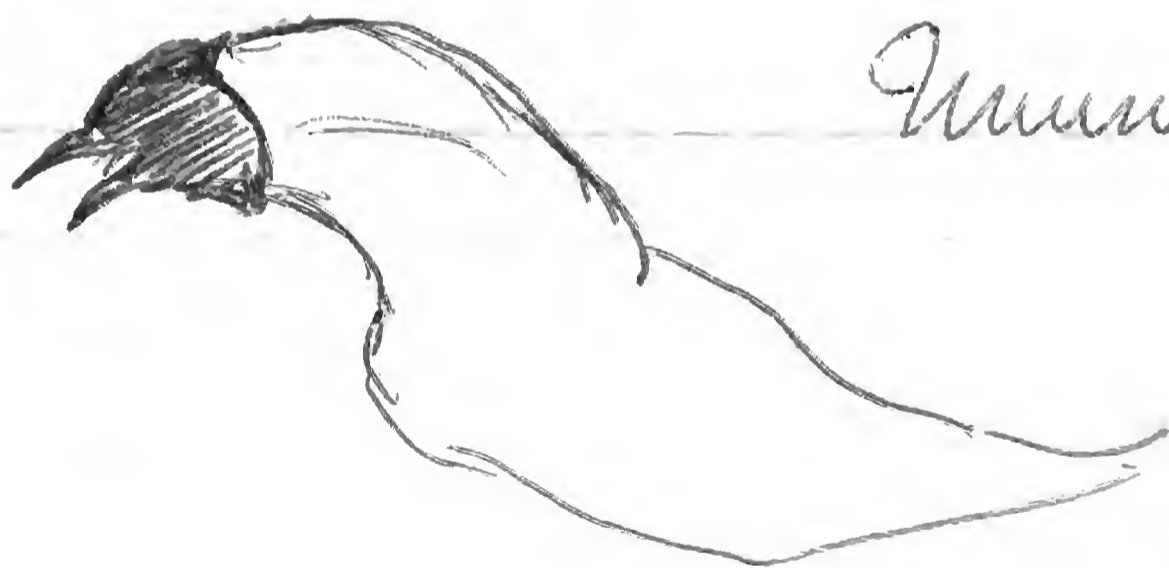

 SU OL-OL-OL-OL. CC before attack, V after attack. AC before attack, V after attack. V. CC before attack, V after attack. AC before attack, V after attack.

♀ joins ♂. n.a.d. Again n.a.d. Again, n.a.d. Again, ♂ does nothing. ♀ PAG.


 SU AC before attack AC after attack CC CC CC OL. V after being attacked. AC before attack AC after attack V. OL. T. V.


 SI AC. AC. AC. AC. AC. AC. AC.

♀ joins ♂. n.a.d.




Unusual O posture

N3 certainly does look, and sound, like a ♀, but obviously quite typical of C's.

SU level does quite typical "ooooo" s, then three brief "uh" (li) sounds 5:38.

♂ joins ♀. n.a.d. ♀ joins ♂, n.a.d.

Not much in the way of intrusions this morning 5:46.


 SU. AC before attack V after attack

June 7 III

20 19
✱ ✱

♂ joined by ♀. mad. Again, again mad.

AC after being attacked AC before attacks AC before

Rain unbelievably strong now. 6:50. Down pour
Lightning considerably less, but wind remains.

Should mention that some of the birds became very
long in the storm, and one, nearly, deserted temporarily.
Birds recovering fairly rapidly. A hell of a lot of pressure
going on.

Have several good views of AC in air. As might be
expected, no feathers are raised.

AC AC AC AC AC AC AC AC AC AC 7:17 AC

A considerable amount of n.b. by solitary, pre-acc, birds
now. Difficult to conclude with anything in particular. Does tend to
follow, ^{or} at hostility, but what doesn't.

AC before attack "Ooah, Oh" after attack. AC before attack
AC after attack AC after being attacked CC CC CC

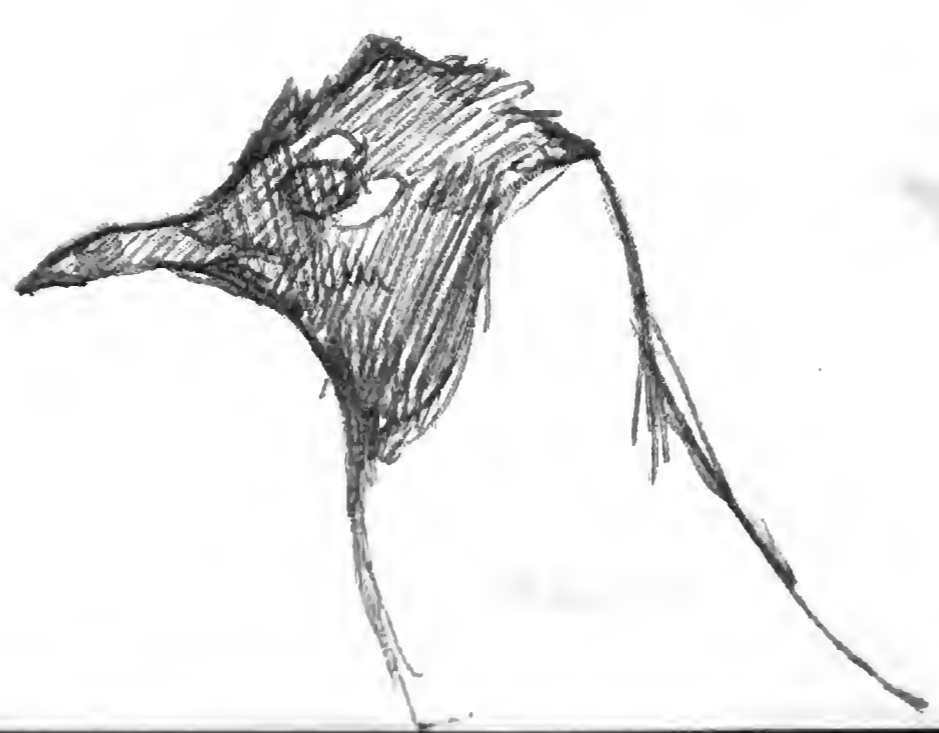
Rain again 7:27. With thunder again. Quickly increases.

During this second cloudburst, the bird who has been
about ever since got in the cloud finally decides to return!
Still, it is obvious that this weather has had a most unsettling
effect on the birds.

(Speaking of this bird that deserted for over 2 hrs,
) see that this bird with its reappearance, the bird at N₃ has
gone. Is this significant? No! Now both present at same
time!

Rain abating slightly 7:45

Definite AC, with bill quite closed!



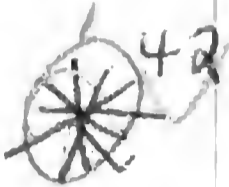
June 7 V

AC. CC after being attacked AC. CC after being attacked

AC before attack CC after attack AC before attack CC after attack 9:05

19

Post-cop display Both U-HF-U



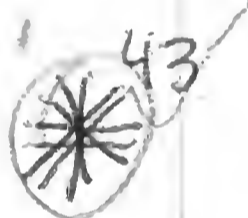
♀ joins ♂ of T-O-AC. ♀ U.



During O, longitudinal lines on face are very conspicuous, much more so than in AC.



Sun almost shining, fairly quiescent, 9:10



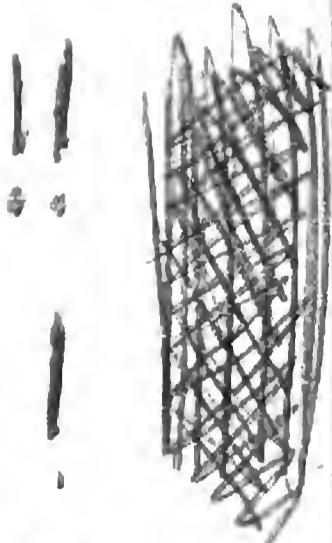
♀ joins ♂. ♂ does nothing, ♀ does U-T-U.



Quill means AC, as nesthat comes up under nest, jiggling nest, eggs and all AC posture with neck horizontal, bill pointed straight down.



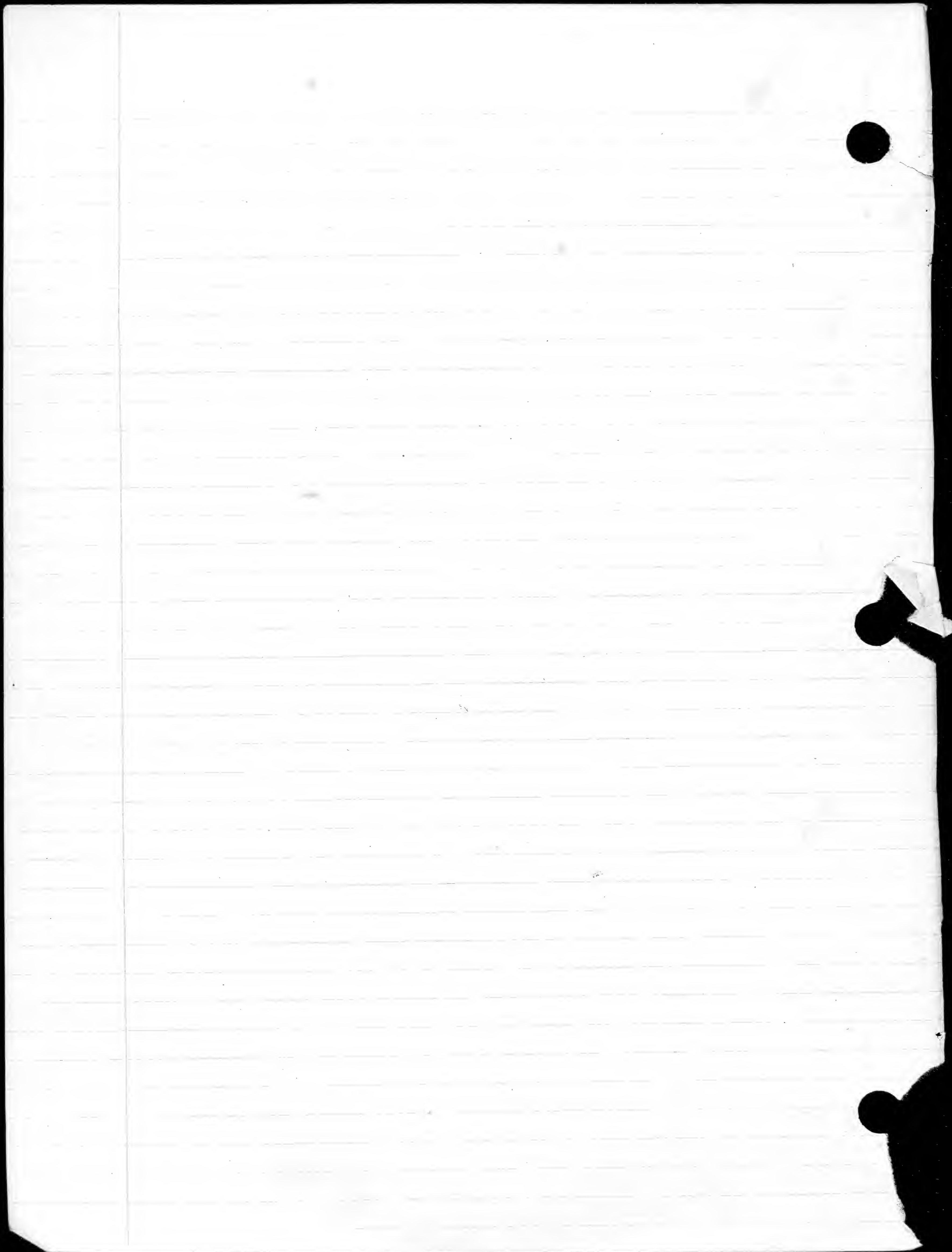
Illustrates the "orientedness" of the AC posture



Que care. Two birds, possibly MC, standing in U, ♂ down into L, first with "ooooah" sounds — merging into definite ground CC. Then both fly off. ♂ back shortly. Starts collecting n. m. Back, drops n. m., with "ooooah" and typical Ch.

AC. AC. AC. AC. AC.

Leaving 9:30.



June 9 II

Bird back at nest covered with clamp n.m. stands, preens, cools
about and flies off 5:27



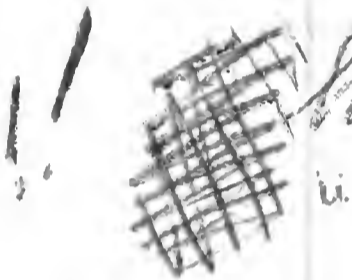
Variant of aerial LCN is "hee-a" almost syllabic.



More birds coming now. Including courting pairs. 5:33.
Courting pairs seem very mobile. Fly away soon.



A call could be transcribed as very long "low" or "low-oo-
ow-ow-ow" (syllabic division very slight indeed).



Watching swoop-foar pattern. Female is "haaahah
haaahah haaahah haaahah..." changing to "heeh
"hee-ee-eee" etc, at times of change.

Seems, at high intensity, aerial is probably



"haaahah" → "heehheehheeh" → "kuh-luh-luh-haaahah" →
"ku-lu-lu-lu-lu-lu-lu" In many approximations (two
intermediate stages are not quite comparable. "heehheehheeh"
(with quaver) is really an intermediate stage, although, perhaps,
closer to "ku", but the "kuh-luh-luh-haaahah" type call is
really a rapid alternation of A and C.

Still dull 5:57.



Can be "kuh-haaahah" or "kuh-luh-luh-luh-haaahah" etc,
as well as "kuh-luh-luh-luh-luh-haaahah"

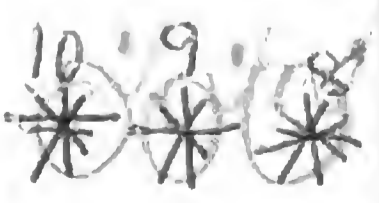


♂ releases ♀. ♂ does V. ♀ does V-T-T.

AC.AC.AC.AC. AC.AC.AC.AC.AC



♂ releases ♀. ♂ V-T. ♀ V-T-V-HF ♀ back, n.a.d.
Again ♂ back, n.a.d. Again ♀ back, ♂ notting, ♀ V.



♀ joins ♂ three times. n.a.d. each time 6:26.

Birds are still very inactive generally.

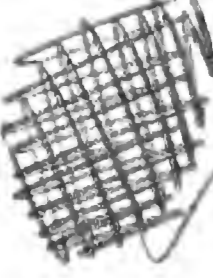
June 9 III



^{1st 2nd}
C.C. AC - attack - AC - ✓



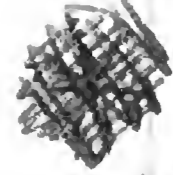
AC AC AC AC AC AC AC AC AC AC AC AC AC AC AC AC AC AC AC
AC AC AC AC AC AC



(Attacked bird stood in semi-U, giving alarm calls, just before attack).



♀ releases ♂. ♀ Ch-V-O. ♂ nothing. 6:40.

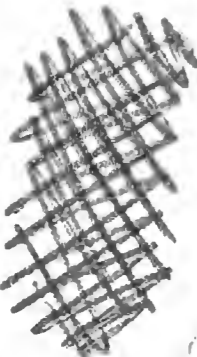


Some CC calls may integrate with "oooooah"s.



♂ releases ♀. ♂ Ch. ♀ V-HF-V.

☑ AC AC AC AC AC. ⊙ AC before attack ✓ after attack



Bird back on abandoned nest. Trying to excavate egg. Without much success I visit some other sites on pile vegetation. Tries to settle with wags. Then goes displacement nest-building. Also Pr.



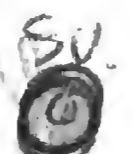
♀ joins ♂. ♂ nothing, ♀ U. ♀ joins ♂, ♂ nothing, ♀ U.
♀ joins ♂, ♂ nothing, ♀ Ch-V.

Wind increasing 6:52.

☑ OL OL OL T AC AC AC AC AC AC AC AC AC AC



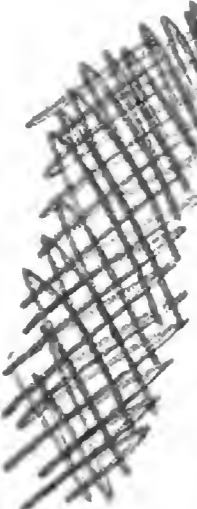
AC AC AC.
♂ joins ♀, n.a.d. ♀ joins ♂, ♀ U, ♂ nothing



OL-Ch.



♀ joins ♂. ♂ nothing, ♀ Ch-V. Again, n.a.d.
♂ joins ♀, n.a.d. Again, n.a.d. ♀ joins ♂, ♂ nothing, ♀ Ch.
Again, n.a.d. Again, ♂ nothing, ♀ Ch-V. Again, n.a.d.



Waddy mutual F.B. at one pair, pre-me. ♀ alternates with apparent Choking (too far away to hear sound, but movement quite clear. Then ♂ attempts cop, ♀ starts to run about right away. ♂ slips off, flies away. ♀ U. 7:08.

June 9 IV

Neck, during AC does not appear to be so thick as in the OL performance.

27 26

A pair of U.a.d. Again, another pair, u.a.d.

Rain starting 7:18. Wind also rising.

28

Apparently a bird attacked, then over AC, flees up to chase attacker, then chase attacker, apparently change from AC to C during the chase.

30 29 28
33 32 31
34 35

A pair of, u.a.d. Again, u.a.d. Again, u.a.d. A pair of another, pair; ♂ ch, ♀ U-HF-U
A pair of ♂ notting, ♀ U-HF. Again, u.a.d. Again, ♂ notting, ♀ U-HF-U. Again, u.a.d.

Leaving, of Jan 7:40

Thursday,
June 10

Arrive "Prospective mainland colony" 6:20 a.m. Cold, Cloudy, Easterly wind. Very few gulls around and, of those, few show interest in nesting cover.

No gulls down 6:30, but a few circling with LCN's, AC's, IC's, and CC's.

Yes! One down, in distance, 6:34. Very alarmed. Two more, even farther. Up again in panic immediately. A few more still circling. One down again, etc. Up again, etc.

Everything either retired or gone. Not a gull anywhere, nothing visible 6:52

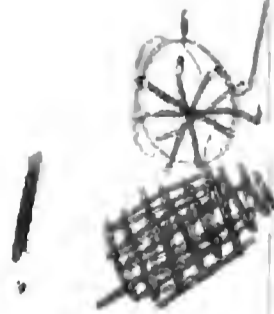
London
June 13

Arrive Island Colony 4:40 a.m. Calm, Clear, Warm. Gulls perhaps a little shy, as might be expected

Near birds back quickly
Colony quite quiet already 4:44. Still a few birds going.

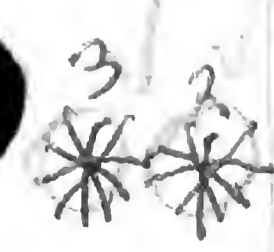
Despite care of AC in V, but not, apparently, clearing interspecific disputes

☒ AC. OL.T. AC. AC. AC. AC. AC. AC. AC. AC. AC. AC.

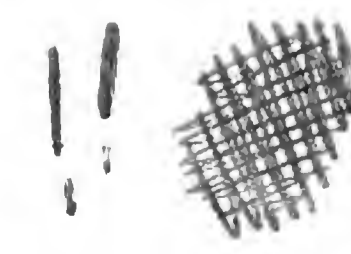


♂ joins ♀, ~~nothing~~. ♂ Ch, ♀ nothing.
Then ♂ Ch more vigorous as ♀ gets off nest

♂ - AC - AC. AC - AC. AC. AC. AC. AC. - AC before attack



♀ joins ♂. ♂ UHF. ♀ nothing; ♂ joins ♀ ♂ U, ♀ nothing.



No back. Landed GC. Then walks in drag. Pick up n.m. drop it. Chokes. More G.C's 4:56

June 13 II

Again, N3, playing with n.m. This time "ooooah" sounds. Again in call between G.C's. Could this "n.b." be displacement, the result of thwarted ~~mounting~~ chase? Followed by preening.

♀ joins ♂, n.a.d. ♀ joins ♂, ♂ U, ♀ nothing.
♂ joins ♀, n.a.d. 5:07. ♂ joins ♀, n.a.d.

N pair land. ♀ begins T unmed. ♂ begins vigorous Ch. unmed. Both stop quickly, begin to preen in a relaxed fashion.

N again. Both begin T in H. ♂ more H than ♀. Then intruder lands. Both O. ♀ miles forward. Intruder flies off. ♂ stands in U. Both relax. Begin to preen in a relaxed fashion 5:14.

nothing. ♀ joins ♂. ♀ U-T-Cpr-U. ♂ nothing. ♂ joins ♀. ♂ Ch, ♀ nothing. ♀ joins ♂, ♂ U-HF-U, ♀ nothing.

N again. ♀ starts playing with n.m. vigorously. Interrupted with brief Ch int. moves. ♂ T. Then ♂ relaxes, eyes to sleep. ♀ continues building. ♂ wakes up. Both T. ♀ continues building. Intruder lands. ♂ does O-AC. ♀ does O. Intruder flies off. ♀ walks to ♂. ♂ T. ♀ starts building again. 5:26

♂ relaxes ♀. ♂ Ch, ♀ U-T-T-T-U.

sw AC before attack AC after attack

N3 still busy with n.m., in intervals of G.C's. 5:31

Colony is still really very quiet. 5:42

sw AC-AC before attack - PAB after attack.



One AC Crest position. neck fairly thin.

June 13 III

13
13
* *
* *

♂ joins ♀ ♂ nothing ♀ V-HF-HF-HF 5:53 ♀ joins ♂
♂ V ♀ nothing ♂ releases ♀ ♂ nothing ♀ V

☒ AC.AC.AC.AC AC AC AC AC OL.O.O.OL.OL.T.T.AC.AC.AC.AC AC.
AC.AC.AC.CC.CC.AC.AC.AC.AC

* *

♀ joins ♂ ♂ nothing ♀ V

OL CC CC OL ALC ALC CC OL ALC - AC before attack

V-HF-V-AC AC AC AC

☉

Bird in V attacked from AC

* *

♀ joins ♂ ♂ ch. ♀ V-HF-V-PAG-PAG-V 6:16

CC CC CC CC CC O

15
17
* *
* *

♂ joins ♀ ♂ V-T ♀ V-HF-HF-V-HF-V ♂ joins ♀
♂ ch. ♀ V-HF-HF-HF-V ♂ joins ♀, n.a.d.

☒

This last ch during N.R. did definitely seem to be correlated with burst of OL's, etc., by solitary neighbor (N).

Clouds coming up now - 6:27

20
* *

♂ joins ♀ ♂ T-T-V ♀ nothing

O.O.O.O.O.O.AC O.O.O.O.O.V.HF.O.O.ch.O.AC

AC. (many swoops & tears) AC before attack

22
21
* *
* *

♀ joins ♂ ♂ ch. ♀ nothing ♂ joins ♀, n.a.d.

!!

Single ALC syllable is quite like single AC syllable.

23
* *

♀ joins ♂ n.a.d

☒
!

N's still busy with building. Monty ♀ again apparent ch. movements. One, at least, definite ch sounds by ♂ (as if upon her, after attacking an intruder) 6:40

June 13 IV

After attack

Then ♂ N goes on pedestrian collecting trip, back, Ch. ♀ joins (unmistakable), ♀ faces him in diag Ch. posture (but apparently without sound. Then both do a lot of nest-building.

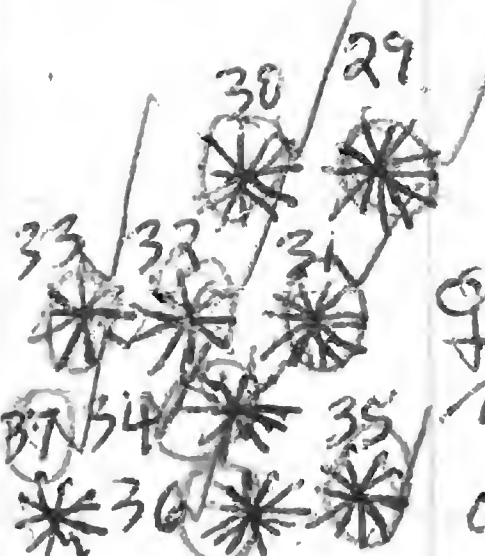


♀ joins ♂. ♂ U-HF. ♀ nothing. ♂ joins ♀. ♂ U, ♀ nothing. ♂ joins ♀. ♂ Ch, ♀ U-HF-V. ♂ joins ♀, n.a.d. Again, n.a.d.

AC before attack - O after attack - T. AC before attack 7:21

Swoop & soar by young males can be considered reduction, but reduction upon a vacuum.

God, how dull! 7:30



♀ joins ♂. ♂ nothing, ♀ T. ♂ joins ♀. ♂ nothing, ♀ U-HF-HF-V-Gps-U-HF-HF-V. ♂ joins ♂. ♀ U, ♂ nothing. ♂ joins ♀, n.a.d. ♂ joins ♀, n.a.d. ♀ joins ♂, n.a.d. ♂ joins ♀, n.a.d. Again, n.a.d. Again, n.a.d. 7:45

Everything, almost, sound asleep now.



♀ joins ♂, n.a.d. Again, n.a.d.

Major panic 7:49. Breaks up fairly quickly. Then again. Breaks up quickly. Then again. Why? Breaks up. Then again at 7:54. Again breaks up quickly. Still another.

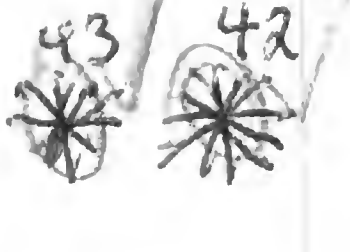
AC before attack AC after attack CC CC CC CC CC

Bird in CC attacked from AC



♀ joins ♂, n.a.d. Again, n.a.d. 8:00.

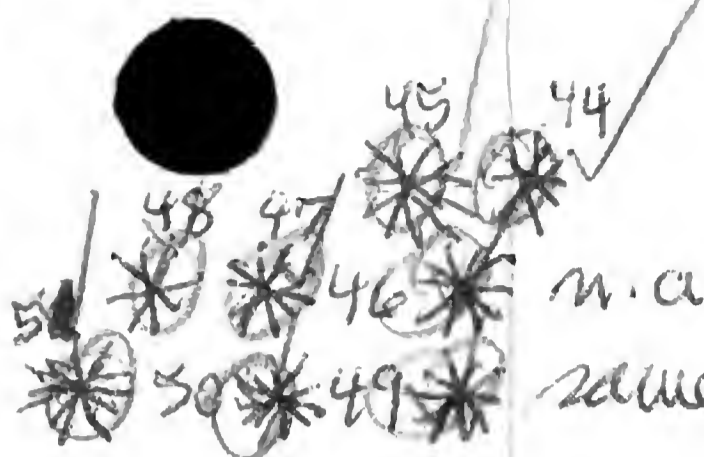
Fun out again, and it is getting increasingly warm.



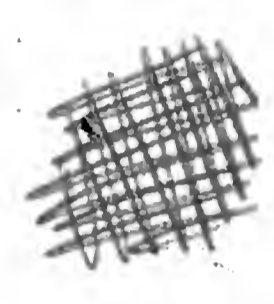
♂ joins ♀. ♂ does O-Ch ♀ does Ch. ♂ joins ♀, n.a.d.

June 13 V

51 AC before attacks. AC after attacks. AC AC AC AC AC AC



of yours ♀. ♂ V, ♀ nothing. Again, same thing, ♂ yours ♀, n.a.d. Again, n.a.d. ♀ yours ♂, n.a.d. 8:13. Again, the same thing, ♀ yours ♂, ♂ nothing, ♀ V. ♀ yours ♂, n.a.d.



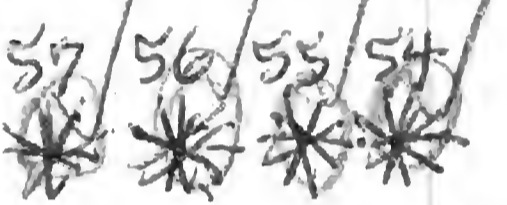
What it again. Seems to be definite correlation between ♂ ch and ♀ T. Also ♀ diag ch posture & PAC (is this ♀ pattern ch also?)

Another pair 8:19. Breeds up quickly. Then a couple of strictly localized ones



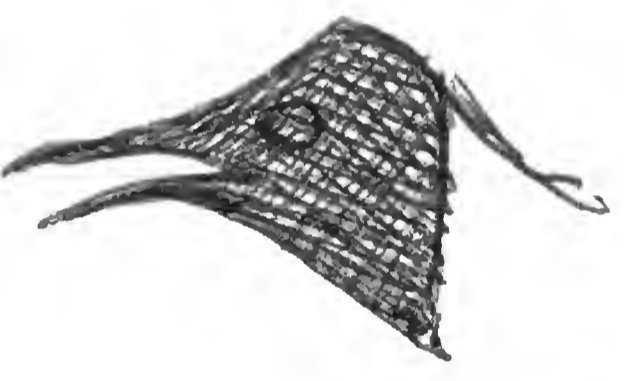
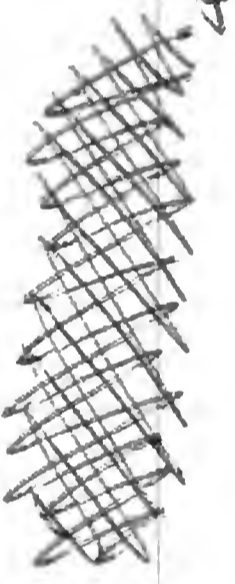
♀ yours ♂. ♂ nothing, ♀ V. Again, ♂ nothing, ♀ V.

AC AC

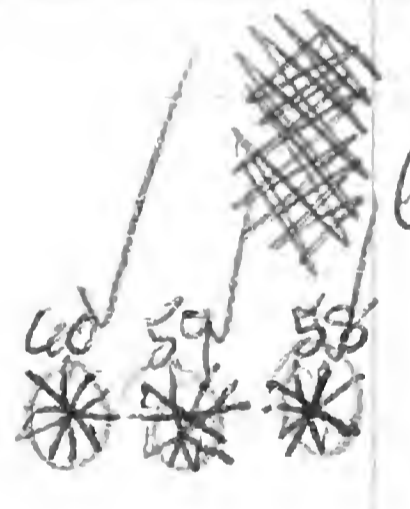


AC AC AC AC

♀ yours ♂. Both ch. ♀ yours ♂, n.a.d. Again, ♂ nothing, ♀ V-HF-V. Again, ♂ nothing, ♀ V



another type of crest with AC

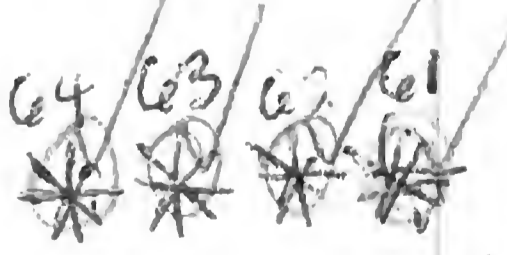


Some AC's with thick, short, necks (down on line well marked) as in some OL's

♂ yours ♀, n.a.d. Again, n.a.d. Again, n.a.d.

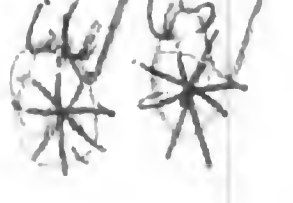
51 AC AC AC AC before attacks AC AC AC AC AC AC AC AC

52 CC CC CC before attack - CC after attack - O-PAG - U-PAG 8:41



♂ releases ♀. ♂ nothing, ♀ V-HF-U-PAG-V. ♀ yours ♂, n.a.d. ♀ yours ♂, n.a.d. Again, n.a.d.

50 AC before attack



♀ yours ♂ ♂ V-HF-V, ♀ nothing. ♀ yours ♂, n.a.d.

June 13 VI

⁶⁻ AC AC. U-AC before attacks

^{SU} AC before attacks ^{100 100} CC.CC. ^{Si} AC.AC.AC.AC

♀ joins ♂, n.a.d. ♀ joins ♂, n.a.d. 8:50 Again, n.a.d.
Again, n.a.d. Again, n.a.d.

♂ joins ♀, n.a.d. Again, n.a.d. Again, n.a.d. 9:01
♀ joins ♂, n.a.d. ♂ joins ♀, n.a.d.

^{Si} AC before attack - A after attack - AC before attack - ¹⁰⁰ V after attack -
Cm - Cm - AC. AC before attack V after attack 9:19 AC.AC.AC

Another pair 9:20. Breaks up as usual.

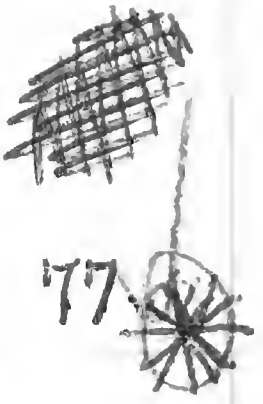
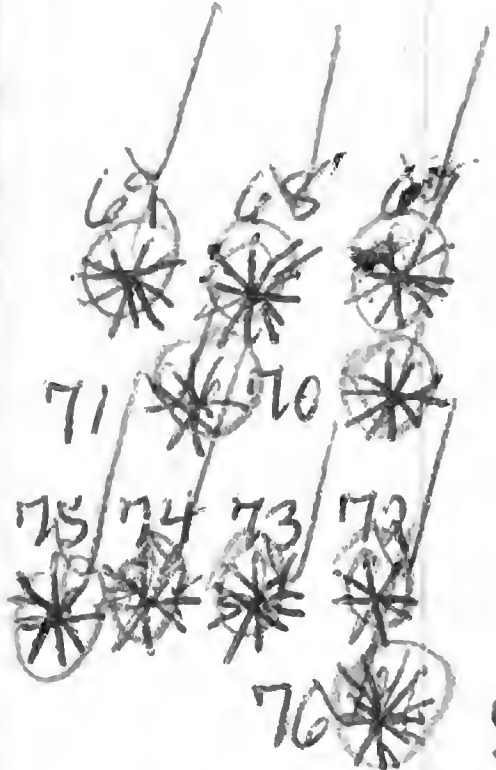
^{SU} V after attack V. AC !! U.

♂ releases ♀. ♂ Ch. ♀ U-HF-HF-U-PAG-U-HF-U.

Birds beginning to gape 9:32.

♀ joins ♂. n.a.d.

Leaving 9:45



Monday, June 14

Arrive small island colony 4:30 a.m. Cloudy, Rainy. Moderate T, wind intermittent.

4:55 a.m. Change A nest near B. B back unmoved. A seems alarmed.

Then settle. No reaction of any sort. B sits placidly. A upset, in that she is obviously uncomfortable (Coliph. acts, going back & forth between old site and present nest, etc.) but on the whole she is surprisingly calm. NR at A 5:23 ♀ flies off. Settles happily - Not a peep from B.

Is this lack of reaction due to weather?

5:47. Try again, same birds. Move A nest much closer to B. B back unmoved. Standing alarmed. A not back so soon then lands at old site. Looks puzzled then starts displacing. Shows no interest in moved nest.

Then A to nest.

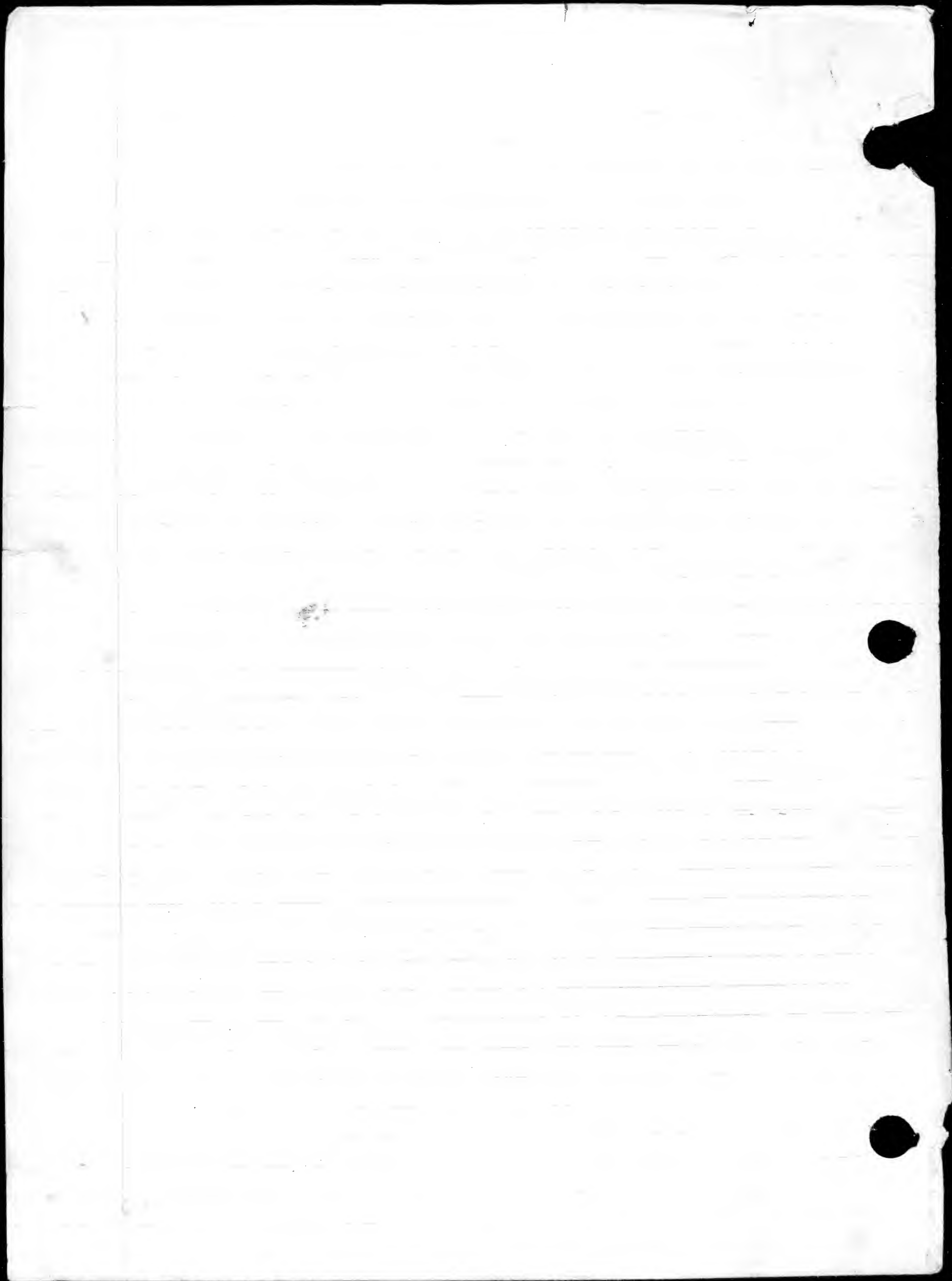
BS AC AC AC AC (almost constant steady stream) A retreats. Back to old site, preens. Back to nest B: AC. ~~Retreats unmoved.~~ A: O during retreat (in air) Back to old site, starts preening. B relaxes immediately. A then starts nest-building then flies to nest B: AC A: O (in air) then tries again, B: AC. A retreats unmoved. Tries again B: AC. All A's approaches are highly flying - and so are all her retreats.

Ending experiment 6:10 as sun is pouring

Try another 6:15 Move D nest near E. D comes back unmoved to old site then to nest. E: AC D: OOO (in air as usual) Back to old site. Starts displacing. Back to nest. E: AC AC AC AC AC D: OOOOO (in air, both advancing and retreating, as well as hovering. Starts displacing again. Again E: AC D: OO Again E: AC AC AC AC D: OOOO again E: AC D: OO D: OOO

"NR" at D is followed or accompanied by unusually low W-HP's - and PAG's.

Ending 6:30



1954

Saturday
June 26th

Arrive Franklin's small island colony 5:40 p.m.
Clear, Warmish. Moderate northerly wind. Nests near island
have disappeared. Gulls take rather a long time to settle.
Some flying overhead with call.

Most down 5:44, but still quite dry.
Fame 5:46. Breaks up quickly.

Young chicks being fed, without trace of M. (Chicks apparently
too young to stand) Again. Again, different nest.
Fame again 6:01. Again. Breaks up

☒ OL. AC AC AC AC AC AC AC AC AC before attack - OL-T
after attack. AC. OL. CC.

⊙ O before attack - V after attack ⊙ AC AC AC AC before attack

* ♀ releases ♂ ♂ AC-AC - U-HF. ♀ CC - U-HF.

!! Comparing ♀ C of inc. phase birds with those of the unmated
males, it is noticeable that the former display at many fewer flying levels
than do the latter and, moreover, that, when they do display, they
will give AC's toward birds toward which the unmated male will
give an OL-T display only 6:55

* ♂ releases ♀ ♂ T-OL-T-U ♀ U-HF-U.

Very dull 7:30.

Quite a lot of unmated males around. None of the rear ones have
been visited this afternoon.

⊙ 1:45 AC before attack - CC after attack - AC - CC - AC - M - PAG - PAG -
PAG - PAG - CC - M - Ch etc. AC before attack - M after attack AC AC
PAG PAG PAG PAG AC. AC before attack - V after attack AC before attack
AC before attack AC before attack V after being attacked

Leaving 8:00

Monday
June 25

Arrive 2:05. Warm. Slight Wind. Occasional cloud
Birds very very dry indeed.

One bird, long dispute (ca. 2 min.) with neighbor. The less
aggressive of the two birds, the one that was twice attacked, gave
C before being attacked, then, after attacks, definite Choking, the
most prolonged that I have seen. No sign of mate being present.
Is Choking even less aggressive than C. (Ch after being attacked)
AC before attack.

Sunday
July 4

Arrive reveal small island colony 2:30 p.m. Sunny,
moderate T°, slight northerly wind.

Blind put up July 2. Gulls still very shy. Reluctant
to come down.

Outlet birds down 2:36.

3 young birds together. Apparently on communal preening station
(looks like large, old, nest). No apparent hostility.

Main birds coming back 2:45

Vigorous fight between two chicks, white underparts
visible. No postures. Bill wide open. Call?

Adult attacking chicks, approx. age of my older ones (again),
different bird again & again & again. All different birds
Bird standing in air. Mingles CC, HF, & AC.

Still lots of birds flying overhead in air 2:53

Chicks about two weeks old react to being pecked by means
something. Pink inside of mouth conspicuous. Also try to adult under

July 4 II

attacked Just saw a younger chick, no more than a week, also try to crawl under attacker, only brief screaming. 3:05

After dispute. Followed by M-PAC. Tail widely spread, symmetrical with each mean.

Birds still very unsettled 3:12, but chicks are back.

Chicks do not seem to beg with T. Just pecking at parents' bills.

Chick giving distress call, head-down, after being attacked. (When age of chick not cited, it looks average for colony, ca. 2 weeks.)

3:32 Chick down rapping, turning back DC toward flying bird. Again Parent?

Again & again chicks being attacked by adults.

Birds upset beside. blend still refuse to come back 3:40

Chick Rapping, given upon seeing parent and/or being pecked by adult, seems to be accompanied by definite bowing

Apparent case of adult pulling its own chick

Falls still as shy as ever, if not more so 4:20 p.m. 4:10 p.m. Far too shy to show any behavior.

no. Is the bowing with Rapp DC. some form of FB? I don't think

still unbelievably shy 4:30.

Chick being fed, without M. This same chick, previously, might have shown a trace of T.

Attended chicks seldom if ever show the head-down crouch posture observed in the Rapp-bill. Don't crawl, just keep running & running away.

15 min of chicks, and there certainly seems to be one, is short, unlike fall Rapp or DC. Whistle? Brief monosyllabic Rapp or DC? Or

July 4 III

~~bird~~ "blow" ? Can't tell, even at distance of a few feet.

Finally quieting a bit 4:55

Chicks ca 3 weeks depending on nest against stay chicks.

Another pair 5:00. Learning myself

Monday, July 5

Amos new colony 5:50 Very warm. Ocean clouds
Very slight southerly wind.

Near birds are still very shy, but far birds settle more.

Young returning 3:44. Birds perhaps
quieting. Near birds starting to come back 3:46, but
not the really close ones.

~~bird~~ ~~family~~ Adults do seem to pick chicks on dead & weak

Family again 4:00.

all ... cal signs of settling down 4:05

~~bird~~ One band of 8 or 9 chicks, all dumped together.

~~bird~~ Chicks fighting. Apparently with ramp DC
due to inevitable reaction to being attacked by either adult or
chicks.



July 5 II

Still this Rarp-DC has little in the way of associated ritualized postures. Bowing, faint, is always very slight.

Gulls certainly recognize their own chicks at this age.

Chick, (white very conspicuous underneath, but not primary feathers), apparently FB with trace of T, and also, apparently, whistle. Also utteres rarp & rarp DC very frequently, correlated, in some cases, with approach of flying bird, or scream by parent, or departure of parent, but sometimes, however, not clearly correlated with anything in particular. 4:37.

Simplest, intense DC by solitary chick is without trace of bowing. Just stands alert.



Gulls still far from settled 4:30.

Chick defending nest, unsuccessfully, against adult

Some adults, at least, give AC before attacking chicks.

Better leave 4:42, as birds are not really quiet.

Ground AC given by birds alarmed by belial, followed by series of ACC's.

DC with definite bows or head-bobs by chicks before FB.

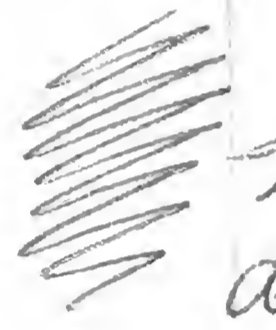
Tuesday, July 6

Arrive near blind 3:35 p.m. Put into blind by H.H. Mann. North Wind. Clear cloud. Spells still somewhat dry.

Heaver birds back, alarmed almost immediately. All these birds doing a great deal of ground C. Young on way back 3:37



His method of entry into the blind seems to be working.



Attacks definitely directed toward head & neck of chick. The chicks are, in fact, very often picked up bodily by the raptor and shaken.

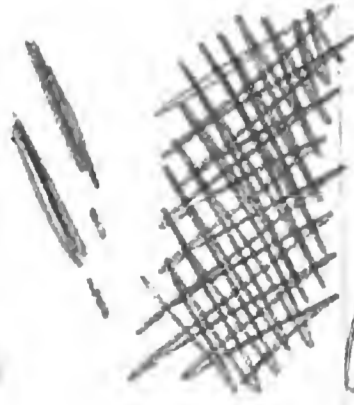


High & low phases of flow with raps.



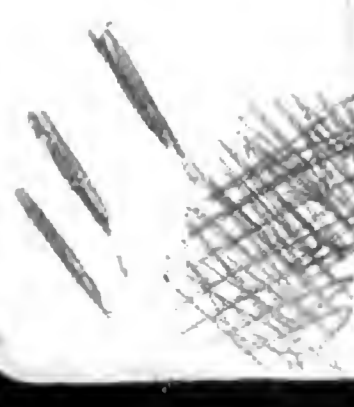
when being picked.

Some of the chicks near the blind haven't shown up yet 3:47. Others have been back a long time.



Adults certainly don't call back chicks with complete M, but it is possible that they tend to give ground C when chicks is absent. This would, of course, be very difficult to prove.

Minor panic 3:58. Still centered about blind.



Very dull really, now birds, sitting relaxed, gives DC on upbeat of head-bobbing or bowing when it begins the DC. But can also do it on downbeat, or without any beat at all.

July 6 II

Again & again have seen Ray-PC as form "greeting"
by chick toward parent. 4:18

Forgot to mention. One, just day here, I saw a strange
chick loaded briefly before being driven away.

Two chicks fighting in nest. One defeated the aggressor, saw the
victim. Aggressor doing little in the way of display (possibly an oocoo.
Ray-PC). Just peck's at victim's nose. Victim doing many PC's
and/or Ray-PC's. Head-bell pointed downward. Parent pays
no attention. Then chicks relax, sleep side by side 4:22.

Saw a long dispute. Long for this species at least. Lasted
several seconds. Apparently involved ~~some~~ an unmated chick
No sign of Choking.

Birds flying about with ALC now. 4:25

Have seen no sign of hunched yet

Panic 4:31. Start to break up fairly quickly, but the trouble
is that some of the near birds are still very nervous. A lot of the chicks
ran unfortunately. Minor bit of panic continues a long time

Chicks tend, I think, to discount the ALC's of any except
their parents.

Chicks are certainly fed very rarely

Birds still haven't settled very well 4:52

Another example of both parents & chicks attacking another
chick. No display except PC. by attacking chick. Attacked chick does
PC with head down. Then, when attacked by adult, chick does
head-down crouch. Also, another time, tries to climb into adult.

Birds still flying around bird, giving ALC, 5:02
Minor panics at far side of colony now.

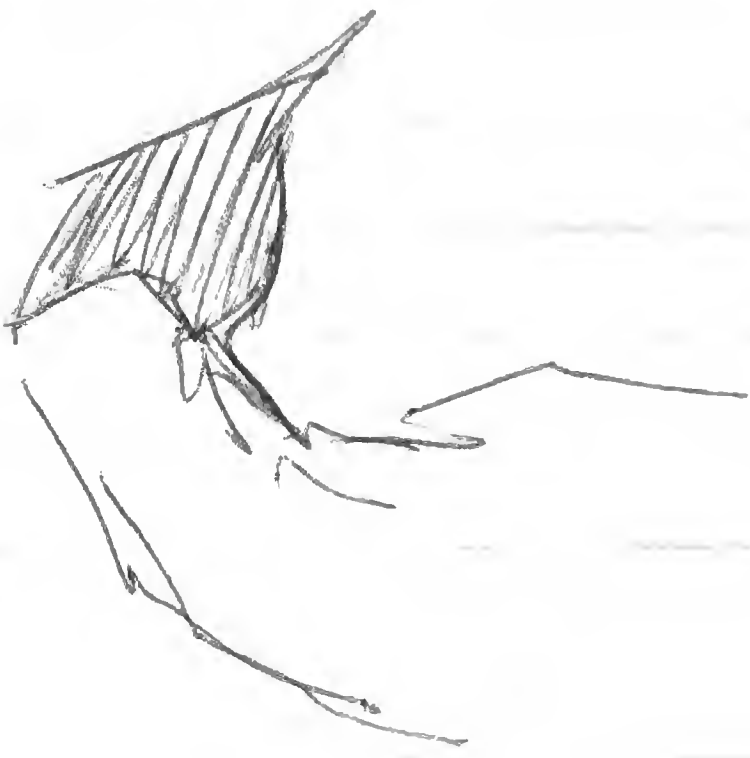
Definitely the whistle that is given with that tail of 3, after

July 12 III

it is by no means invariably associated with FB yet
Should also mention that whistles can be given by
chicks along FB without trace of T.

Several more cases of chicks apparently attacking trespassing
adults 5:18.

Angle at peak of adult T is rather more extreme than I
first thought. Almost as great as that of atralla T.



the T of chicks that I have been talking about,
although not exactly from hunched, is from a fairly relaxed,
head-withdrawn posture. No trace of real bobbing.

Except for Neger's Yeron being attacked in the
distance, everything is very dull again 5:46 Still 6:10

Still plenty of unmated birds about.

Dispute between two neighbors, each on station.
Each on station. One with chicks more aggressive. Sequence not
clear in all respects, because of flying birds, but following is
approx. Aggressor: (O-cc) (intermediate) - AC. Less aggressive
bird, apparently wife. (O-cc) - ch-T-ch-T-ch-ch-T-ch
etc.; then nudges ch with a series of cc's. Aggressor flies off
then the less aggressive bird flies to the aggressor's station, but
is repelled by chicks 6:20.

Some of what I have been calling (O-cc) are probably
just plain O.

July 6, IV.

Some of the chicks head-down DC. Looks very much like Ch.

Again, I might note, Ch often diagonal, definitely without feather ruffling. Lower belly feathers only slightly fluffed. Eye moderately open. Tail not conspicuously spread.

This bird that has been Choking, shows no sign of being mated to 125.

Prolonged dispute in distance, probably with some Choking. Can't observe it well.

Leaving 6:35.

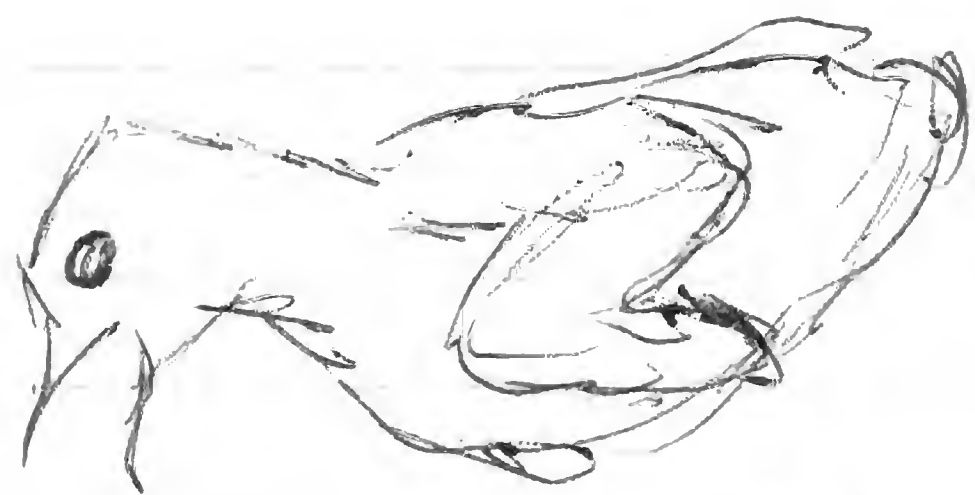
Plenty of pairs in pre-egg stage.

Saturday,
July 10.

Arrive same place 2:10. Warm. Semi-clear. Moderate S.E. wind. Part in blind by S.T.D.

Birds start to come back fairly quickly. One near 2:13. Others shy.

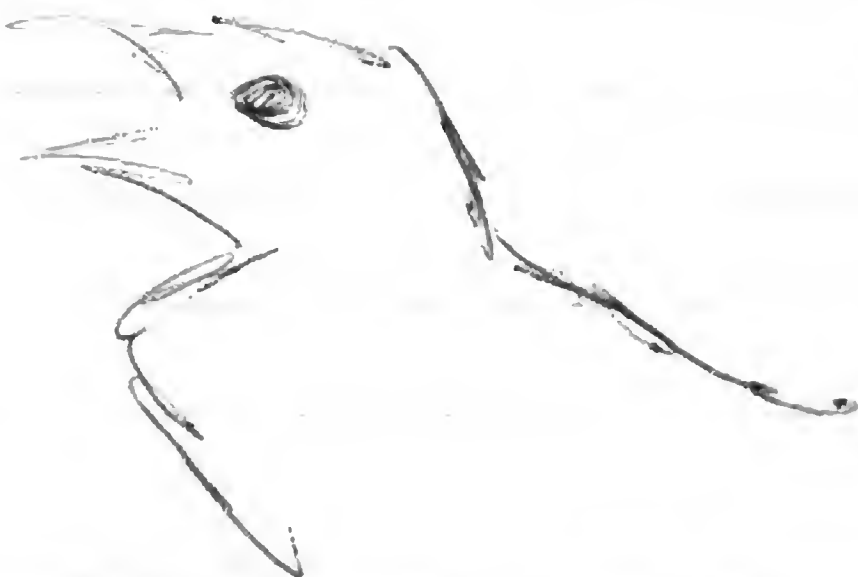
Again example of adult attacking its own young.



head-down Rasp.



Oblique Rasp or high intensity distress call



another Rasp posture

July 10 II

Chick bowing to parent

Apparently with whistle, or at least, very thin Rasp.

Quicker stops, a few seconds after parent has alighted.



Minor panic 2:35. Breaks up fairly rapidly.

See this bowing again, definitely with Rasp. It differs from the adult O → L sequence in being more rapid, much more frequently (almost always) repeated. 2:37.

Some birds still flying around, giving the RLL. Why? Couldn't have seen me, but might have seen blood move.

Rhythmic adult Long Call



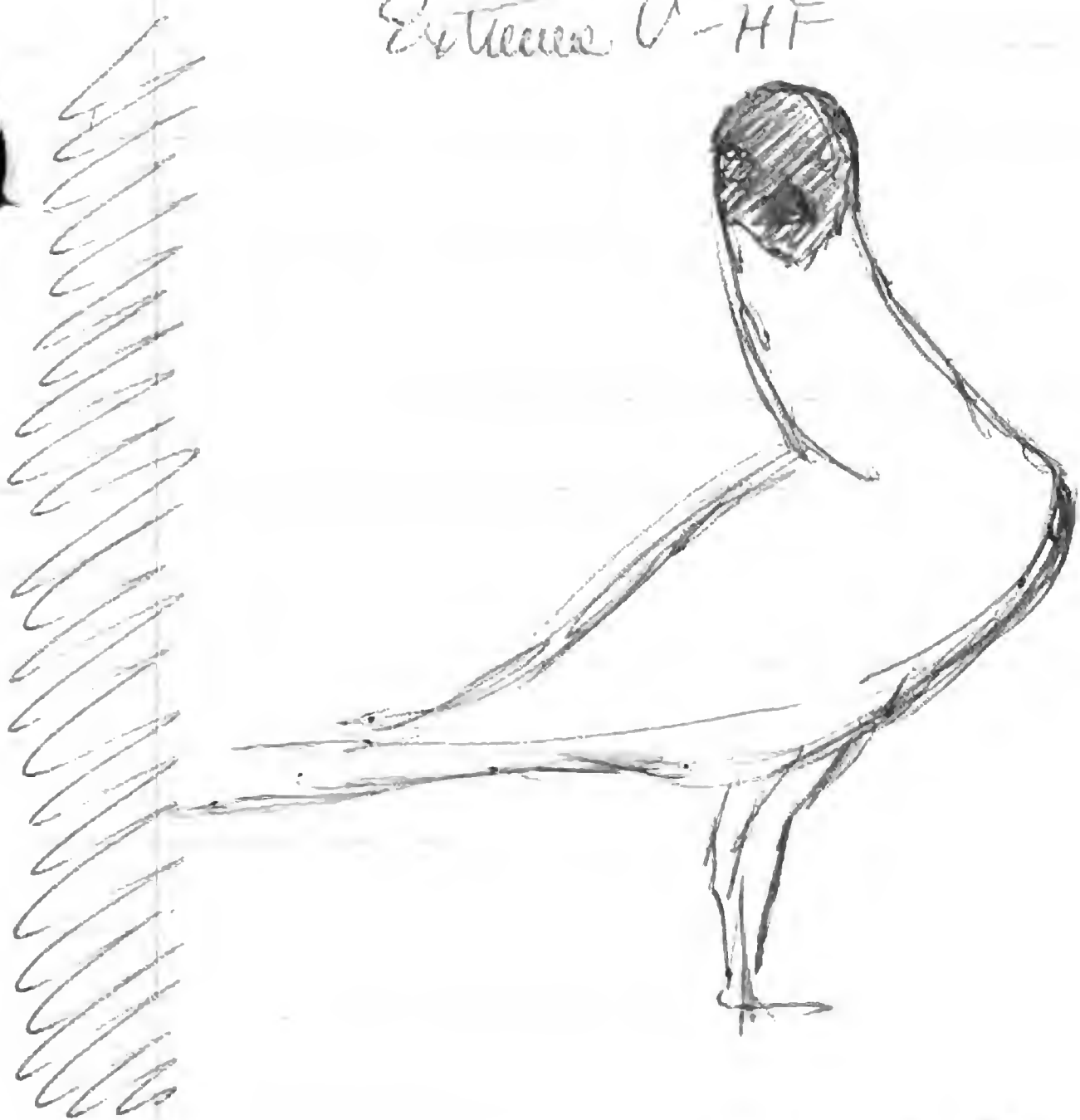
Very quiet now 2:48.

Still very dull 2:55

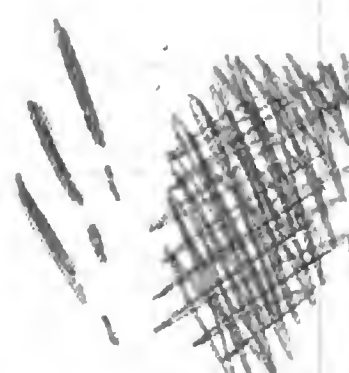
Reduction attack during panic. By ♂ attached bird then Ch after retreat. Ch after unsuccessful, timid, retreat. Call V, O, and Ch, with tail above raised wing-tips. Attached bird apparently unmated, certainly no mate present on ground. One bout of Ch preceded by brief M.

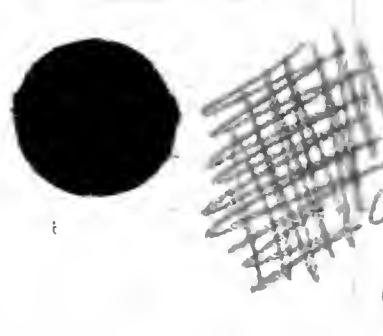
July 10 III

Extreme V-HF





Again dull 3:20


 Brief C., before O, dummy chief, apparently low intensity, long distance dispute with neighbor. Both disputants alone.


 Bowing by cheeks not usually accompanied by raising of wings (in any way).


Minor panic 3:27. Breaks up fairly quickly. Then starts again. Then breaks up again. Then starts again. Then breaks up again.

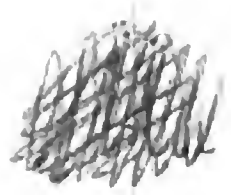

 Certainly the bowing seems to be the usual initial greeting of parents by cheeks. Followed - usually - by "FB"


 Another panic, major, 3:30. Starts some cheeks running. They usually ignore minor panics.

Then another and another, why?

H.F. + H.H. That's why. There will be a long intermission.


 They leave 4:07. Bird very shy now. But far over some walk almost immediately. Near front birds have shown no sign of coming back since H.H. + H.F. first appeared on the horizon.


 All toward flying birds.

July 10 IV

Some near buds back 4:17

Definitely chukis attached mostly on nape

Boundary dispute. One bird ch- is attached - ch- attacks. Other bird ch-cc- attacks - ch- is attached. They separate after the last neck.

ch definitely mingled with M.

Tail spread during ch, off and on. Sometimes alone

wing-tips

Another example of long-distance boundary disputing involving ch. Bird does ch-O-L-ch-O-L-ch.



front-top view of some ch. Shows spreading of wings and raising of tail.

In none of these cases has a mate been obviously present

The buds in front still haven't come back 4:30. Show back 4:35, but no sign of chukis.

Another dispute. Less aggressive bird does most ch, although the more aggressive one does it also. Then the less aggressive one becomes more so. Does C before attacks. ch after attacks.

This bird, ♂, possibly ♀ in midst of dispute. Showed tendency to orientate his Ch. long toward her.

Like a triller



Angles of ch.

Still the nearest birds, both chicks and adults, have shown absolutely no signs of retreating 4:48

Came 5:03. Fed?

July 25

Amie same color 3:03 p.m. Clear, sunny, little wind. Put in blinal by Helen and Jack.

Quite a number of young flying. Young emerging from nests 3:07. Far adults starting to land 3:09. Getting lower 3:10.

The young lands fairly near 3:12.

One young greets adult and/or nest-mate with B (owing) and Ruffle.

One young, another, very near 3:16.

One young means D.C., no posture, toward adult landing a few feet away. This young in flying stage.

Another means D.C. as it comes in to land.

One young means D.C. as it returns to nest where parent and other young await it. Then both young B with "Ayoo", no R, to parent, gradually changing to obvious FB.

B seems to be usual greeting to parent. Young D.C. after being attacked D.C.

gets louder as it approaches parent. Switches to FB as soon as parent reached. Parent's greeting consists of T.

Young does D.C. before and after landing.

All this lowing without R.

Haven't yet heard "hooa" the pattern my birds still have. 3:27

B looks almost "friendly"; hostility must be low or relatively slight.

Diller now 3:37.

B definitely accompanying FB.

One young slightly R after attacking neighbor 3:47

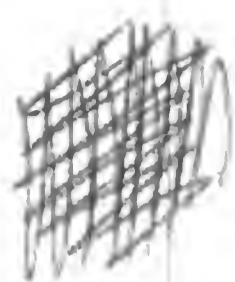
Very dull 3:52. Young seem to be very peaceable.

Young lets young coast into nest lands it.

Some trace of R by two young after adult leaves.

"Ayoo" or "Ayoo" by other young toward strange adult a few feet away. No posture.

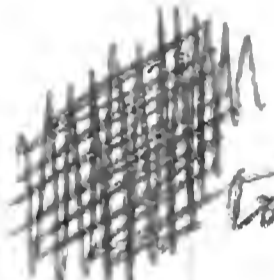
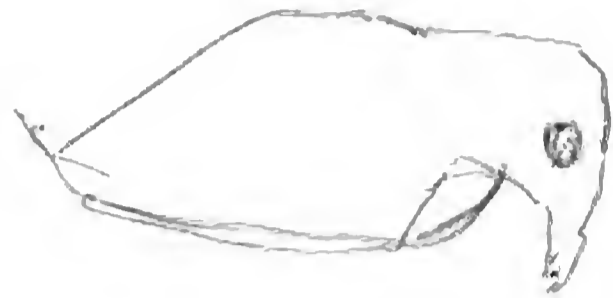
July 23 II



Little young does slight "Ka" or "Kaya" sounds toward coot. Almost AC. No R. 4:02.



Young in no posture when picked by coot young. Some call. Slightest trace of R.

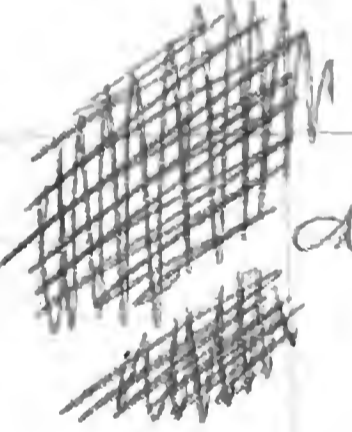


(Flying stage)
Young greets parents first with B with D.C., changing to B with "Kyo" changing to FB with occasional T. Another young allows itself to be picked by young coot. In HD and/or croak. Some call. No R.



Young threatens adult with "Kaaa" or "Kyaaaa". More or less usual L posture. Some R definite, after adult leaves and as "Kyaaaa" squawks die 4:17.

Try dubb - again 4:37



Young does slight R, in semi-H, after attacking another young. Slight R, in HD or L, after being attacked.

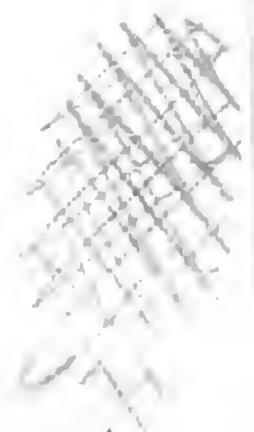


One young yells "kaaa" notes in posture commence at adult coot



No R

No carpal raising



Two others also yell "Kaa" at adult coot. Posture more emphatic, but much less so than adult AC. Posture definite L. Carpal joints raised. No extreme R by one bird 5:04. Then some sounds in semi-D posture.

July 25 III

lots of nesting birds without an adult this afternoon
Many more examples of B as greeting

of R to R by young, species, presumably directed at
and mate or neighboring young
then - R - "hyaa" in H with R, by young
toward strange adult

Young (no flight) - sees T at flying adult toward
which it has just landed on the ground and shows no
desire to approach. Thus, apparently just hostile T 3:27.
Two adults B with R, I don't know at what

Two adults HD, scream, after being attacked P & R

Two B ("hyaa"?) with one slight R
One young upcalls another with L with R quite
often B

Example of R becoming stronger just before flying
toward another bird 3:46

Example of B with cupi raised

Young (no flight, or, just possible, just flying)
upcalls with "hyaa" screams and R (R including
sawing of neck feathers and partial crest)



Just as B

Young screams PC when attacked by coot 4:08

certainly "hyaa" or "hyaaa" is by no means
regularly accompanied by R in these young

DC, then R, after attack

DC - certainly the usual flight call here

DC in L with R

DC, no ... left R, after attack

Chick of C - first B with D.C. - B with "kyoo" -
toward young parent (D.C. and "kyoo" are obviously related)

Adult around C. with moderate R. (Probably high intensity - just after fight) 6:27. Again, same bird also 0 meter and indication of R

CC with R - AC attack.

... low dull / 6:37

Young age of my medium, "kyoo" (possible R) from H with R

Getting ... by the minute - in spite of the fact that adults are beginning to return 7:02

Chick replies adult "kyoo" in L, then

Chick "kyoo" in L with R toward adult

Young making sound like C or M, while ... flight R. Neighbor, doing it to. ... stops 7:20

DC in L with slight R

Sound "greeting", actually, is B with D.C. -> B with

Done 8:00 am Helen

Franklin's June 5 I,
1955

Sunday, June 5, 1955

Arrive colony on the March 3:00 p.m. Warm clear, no wind.
Have to get in blind myself. Birds fly down almost
immediately, but in definite alarm posture.

⊙ no-actual contact between

Most of the birds are flying around. Many along all water.
A lot of this behavior is roughly like the Poling, 3:25 approx.

⊠ - disputes with members of another species

⊠ ⊠ Glik-ō-Glik-ō-Glik-Glik. Glik Glik-ō-ō-ō-ō-ō-ō. Glik Glik-
Glik Glik-Glik Glik Glik

⊙ Glik-Glik-Glik before attack - Glik after attack - Glik before attack
⊙ Glik-Glik Glik-Glik-Glik Glik before attack - Glik after attack
Glik-ō-ō-ō-ō-ō-ō-ō-ō-ō-ō Glik Glik-ō-ō-ō-ō-ō-ō-ō-ō-ō-ō Glik
Glik-Glik-Glik-Glik Glik-Glik-Glik Glik Glik-Glik-Glik Glik Glik V.
Glik-Glik-Glik-Glik-Glik-Glik-Glik-Glik Glik-PAG-PAG Glik Glik Glik
Glik Glik-Glik before attack - Glik after attack - Glik Glik-Glik-Glik Glik-Glik
Glik-Glik-Glik Glik-Glik-ō-Glik Glik Glik-Glik Glik Glik Glik Glik

Call by individuals
birds

Glik with even more extreme "Caribbean Tanager" sort than I
have drawn



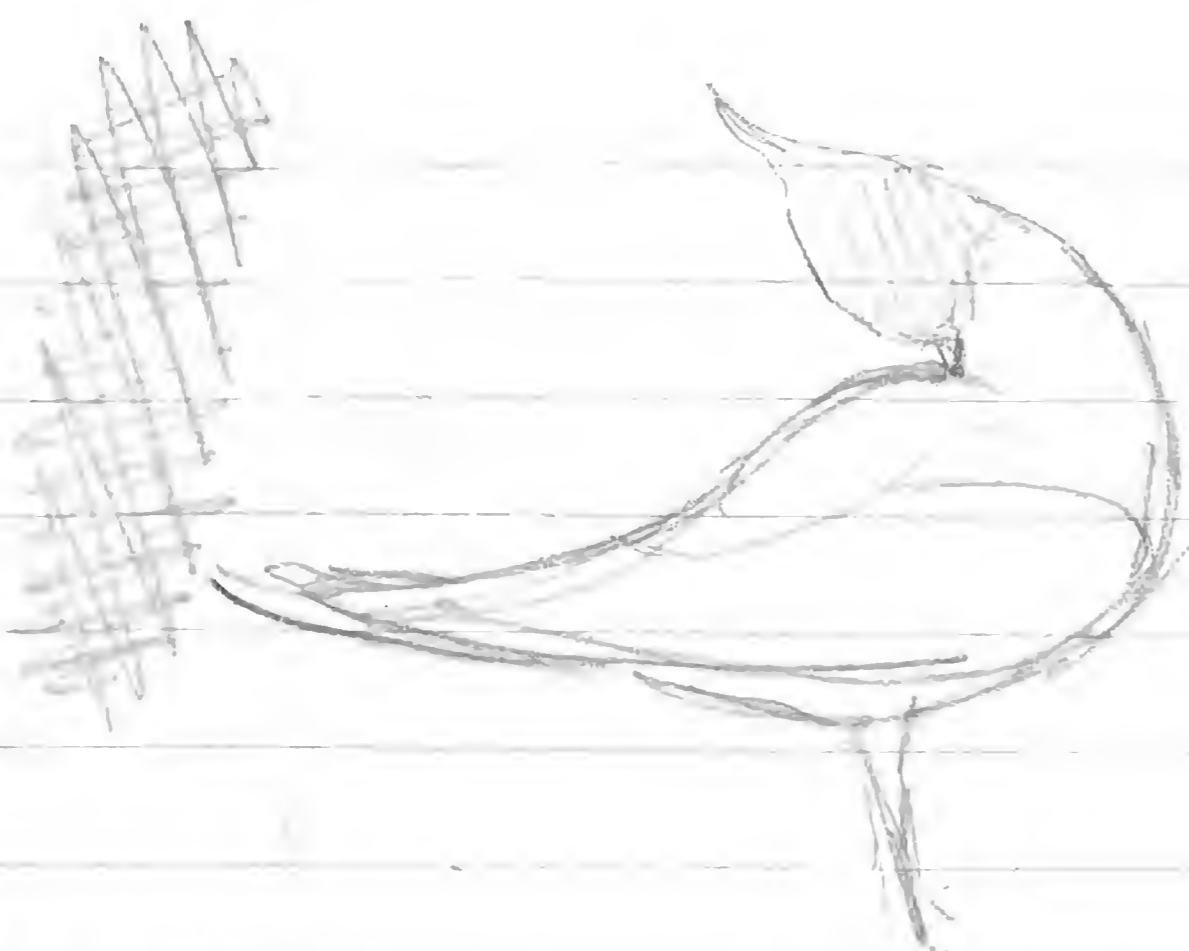
3:45 p.m.

⊠ ⊠ ⊠ ⊠ Bird young, 100's, perhaps 1st of the PG type, from a
perfectly typical nest. I saw 0 Glik posture, with R 4:00 p.m.

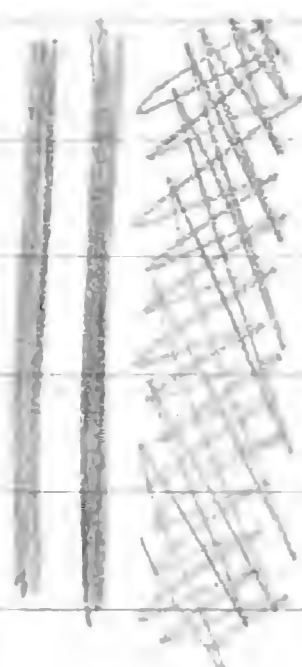
Franklin's

June 5, 1955

II



Typical - extreme form of T (after OL)
Very short-necked

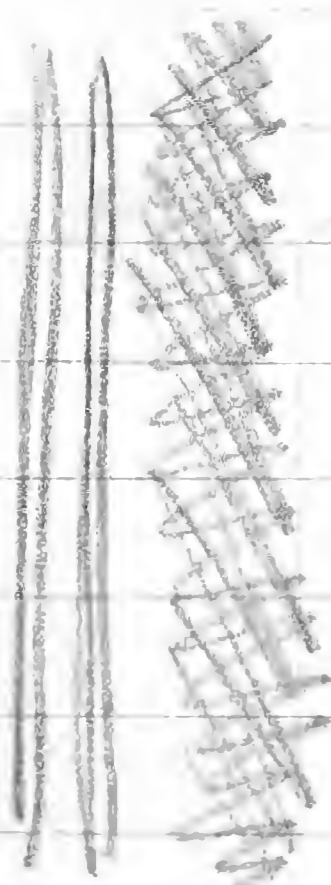


If the typical Gbk sound can be rendered as "Ka-Ka-Ka-Ka-Ka-Ka-Ka...", the apparently lower intensity Gbk can be transcribed as "Ka-a Ka-a Ka-a..." lowest intensity is single "Ka-a" note. This latter is probably, in reality, an interrupted series of "Ka-a" notes 4:45 pm. "Ka-a" note seems to be transitional to LCN.

Two nearby nests seem to be deserted. One back 5:00

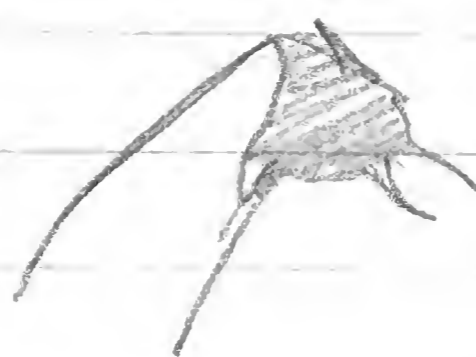
Crown feathers clumpy & are sleek. Black extends further down the neck than in my drawings.

Very dull now 5:20.



movement

Notice Gbk is accompanied by definite down and up movement



back up and repeat

Looks rather like PAG intention movement



Post-cop m a d ♀ flies away, ♂ remains 5:35



◆ Toward flying birds, by incubating birds or their partners. Gbk 2 Gbk



Notice that some song calls by standing birds have a peculiar cadence and pitch which may help to explain some of the peculiar sexual

Franklin, June 5, III,
1955

Long Calls

Roughly this

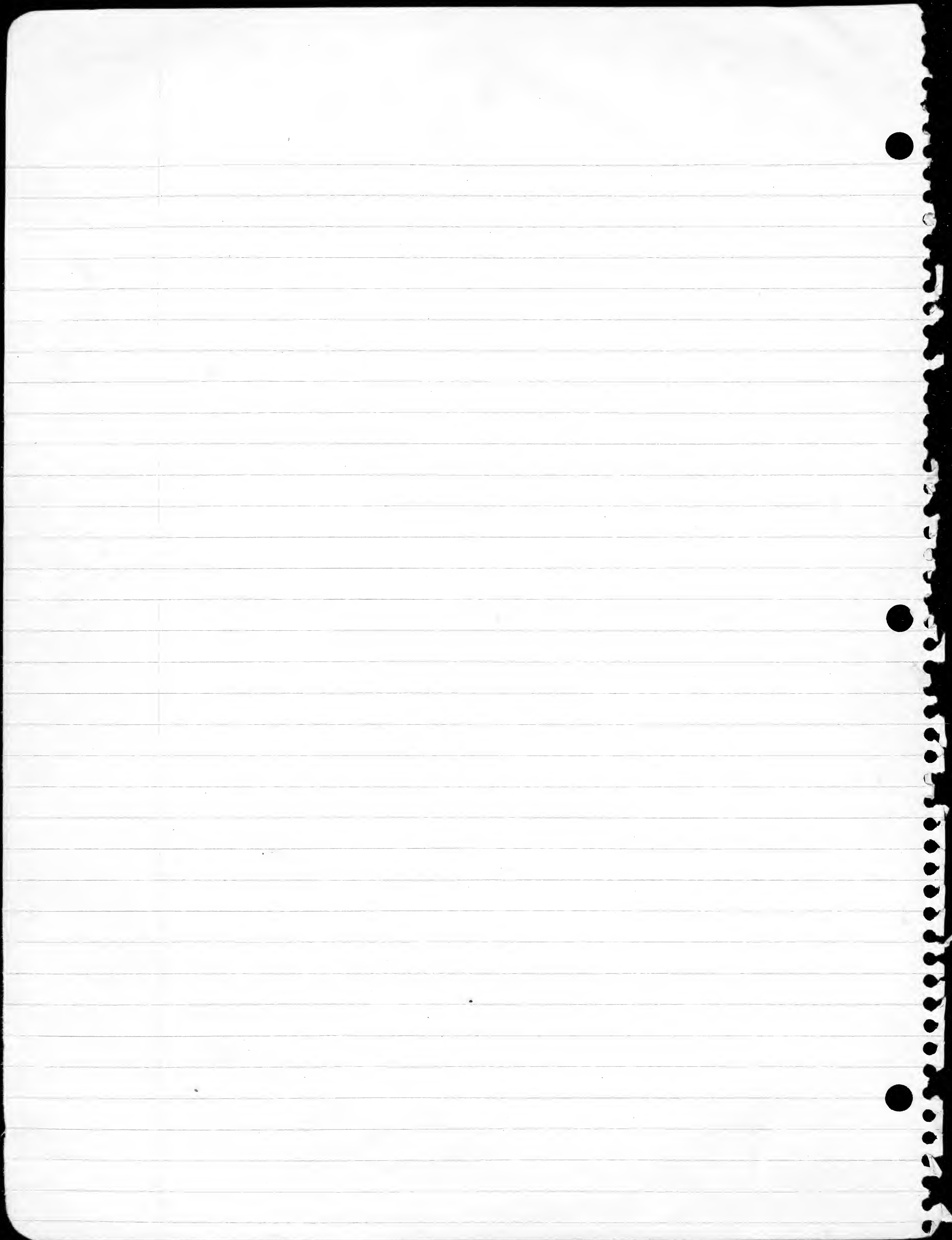
The last note is the one with which one would expect a T move-
ment. Found like ordinary LCN and some T sounds. But there isn't any
T movement. Note just uttered as the bird comes out of L, or after it has
come out of L, standing in an erect posture 7:02

① Glik Glik Glik Glik Glik Glik Glik Glik before attack
Glik between attacks - Glik after attack - Glik after being attacked - bird
in Glik attacked Glik Glik Glik - PKG - Glik Glik Glik Glik Glik Glik Glik
Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik

All the O's that I have seen today have been LCN's or series of
LCN's from the semi-U type of O posture 7:22

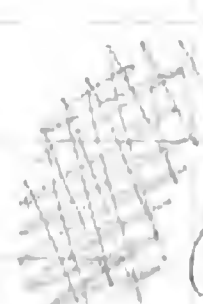
② Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik
Glik Glik Glik Glik Glik Glik Glik

Leaving 7:35 p.m.



Francoeur's June 7, 1955
I

Crows land 2:50 pm. They come down with the
wind. They're up in blood again, which is a good amount
up by the whole thing. I walk far away little almost revised-
lately. Just near one 3:00. A few more shortly afterward.
Now of these are really under the blood.



Francoeur's "lines" or "roads" are very common in alarm
posture (and primarily in Acc V).

Definitely
from near
near



A few very near birds down, about 3:12. Acc V posture.

3:15

l.a.

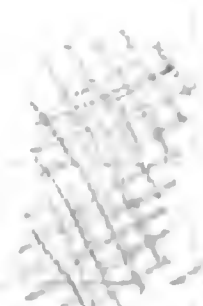


10
10
10
64

Incubating alone, note not present. Glik Glik Glik Glik
Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik
Glik - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc
Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik
Glik - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc - pcc



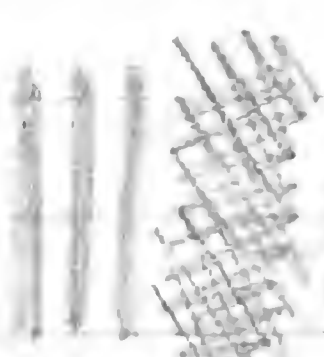
Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik Glik
Glik Glik Glik Glik Glik Glik Glik - pcc - pcc - pcc - pcc - pcc - pcc



This so-called pcc on ground is certainly just an "answer LEN" of
some sort. Definitely contains an actually strong element of attack, of course.



Flying birds. Or Glik or Glik Glik Glik or Glik Glik Glik etc.



This so-called pcc is definitely very common by alarmed birds, after
they have finally come down next to the blood. Can thus be considered a form of
"inter-groups" hostility in these circumstances. Just more aggressive than the

Franklin's

June 7, 1955

II

Alarm call. But it should be stressed that this so-called alarm does not seem to have any great "alarm" function. Heavily birds just sit and look at a bird, many this call 4:20

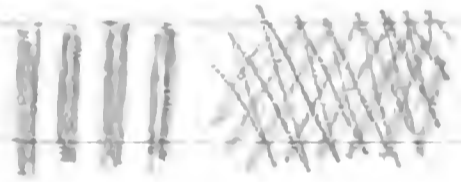
Very dull now 4:45

Intention: View of Glk seems to be a semi-O carriage of head & neck, very well orientated toward opponent (sometimes turned, if body points the other way), with "wing" raised "neck feathers" somewhat raised.

Glk ¹ Glk ² Glk ³ Glk ⁴ Glk ⁵ Glk ⁶ before attack Glk ²⁴ Glk ²⁵ Glk ²⁶
Glk O Glk

Beginning to cloud over slightly

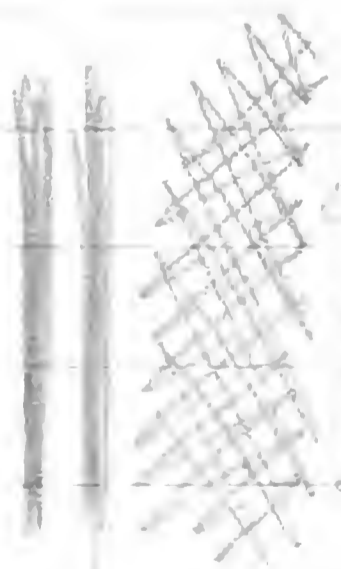
Still duller 6:00 Duller still 6:25 Still duller still 7:15



I haven't seen FB, regurg, or feeding since then last two days!

Glk O-T-T O Glk O-O O Glk

Glk ¹ Glk ² Glk ³ Glk ⁴ Glk ⁵ Glk ⁶ PCC ⁷ PCC ⁸ PCC ⁹ PCC ¹⁰ PCC ¹¹ Glk ¹²
before attack - Glk after attack



Incidentally, I have never seen any definite reaction by Yellow-headed Blackbird, Coot, Murrelet (or even toad) to the threats, (mostly Glk), of the gulls. At most Gulls might tend to chase other animals from approaching further, but even this is dubious.

Leaving 7:35

Franklin's June 12, 1954

I

June 12, 1954. 11:50 AM. In open woods Cool Spring
Q. and

Q.
... ..

Q.
... ..

Q.
... ..

June 12, 1954

... ..
... ..
... ..
... ..

Q.
... ..
... ..
... ..
... ..
... ..

Still pretty dull 3:20 PM

The
... ..
... ..

Franklin's June 12, 1935.

III

~~☒~~ ~~☒~~ ¹⁴⁷guk. ¹⁴¹guk. ¹⁴²guk. 5:00 p.m. ¹⁴³guk. ¹⁴⁴guk. ¹⁴⁵guk. ⁹⁷guk. ¹⁴⁶guk. ¹⁴⁷guk. ¹⁴⁸guk. ¹⁴⁹guk. ¹⁵⁰guk.
¹⁴²guk. ¹⁴³guk. ¹⁴⁴guk. ¹⁴⁵guk. ¹⁴⁶guk. ¹⁴⁷guk. ¹⁴⁸guk. ¹⁴⁹guk. ¹⁵⁰guk. ¹⁵¹guk. ¹⁵²guk. ¹⁵³guk. ¹⁵⁴guk. ¹⁵⁵guk. ¹⁵⁶guk. ¹⁵⁷guk. ¹⁵⁸guk. ¹⁵⁹guk. ¹⁶⁰guk.
¹⁴⁷guk. ¹⁴⁸guk. ¹⁴⁹guk. ¹⁵⁰guk. ¹⁵¹guk. ¹⁵²guk. ¹⁵³guk. ¹⁵⁴guk. ¹⁵⁵guk. ¹⁵⁶guk. ¹⁵⁷guk. ¹⁵⁸guk. ¹⁵⁹guk. ¹⁶⁰guk.

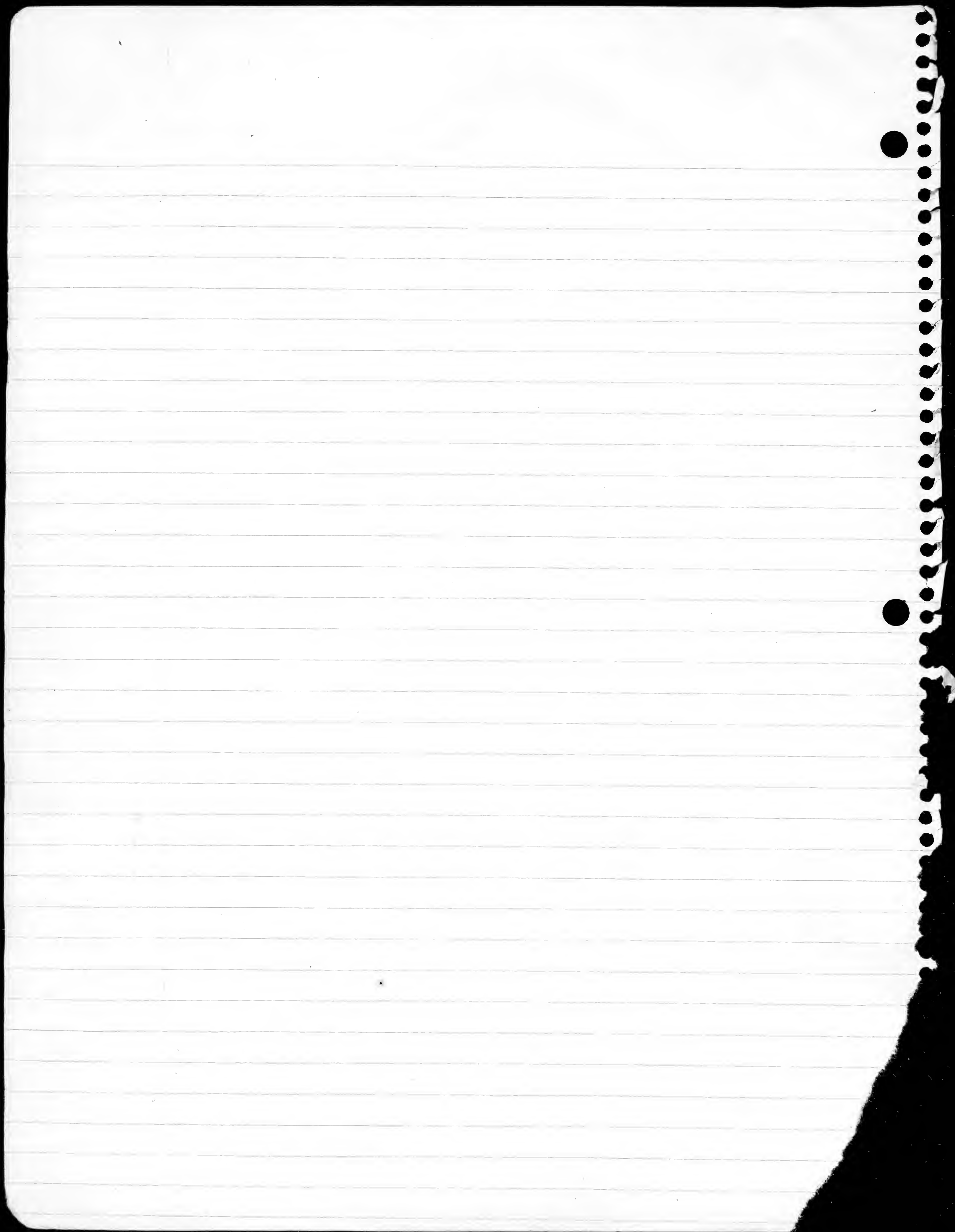
~~☒~~ ¹⁵⁰guk. ¹⁵¹guk. ¹⁵²guk. ¹⁵³guk. ¹⁵⁴guk. ¹⁵⁵guk. ¹⁵⁶guk. ¹⁵⁷guk. ¹⁵⁸guk. ¹⁵⁹guk. ¹⁶⁰guk.

Measuring dull 5:25 p.m.

uc. phase
m. i. n. a.

¹guk before attack - ²guk after attack 5:45

Leaving 7:00 p.m.



Franklin's January 1955
I

Severe cold, 2:55 in West. No wind. Birds alarmed,
usual ...

gltk O-L-O-L-T-O-O-O O-L-Occ gltk-O O-L-O-O O-L-T-U-O O-O-O-L O-O-O-O-O-O
O-L-T-O-L-T-T-gltk O-L O-L-O-gltk-O-L-O O-L-T-U-O-L-O O-L-O-T-O O-O O-L-T-gltk O

Vertical scribbles



occ in this posture

Definite crest
Emphasizes its relationship with
gltk
3:25 P.M.

occ gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk

Feather feathers raised when panting showing heat. This much looks
like the gltk posture. But none of the other feathers are raised

gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk
gltk-Pcc-gltk-gltk gltk gltk gltk gltk gltk 3:25 gltk gltk gltk gltk gltk
Pcc-Pcc-Pcc-Pcc-Pcc-Pcc-Pcc-Pcc-Pcc-Pcc gltk-Pcc gltk-gltk gltk Pcc-Pcc-
Pcc gltk gltk-Pcc-Pcc-Pcc-Pcc gltk-Pcc-Pcc-Pcc-Pcc gltk Pcc-Pcc-Pcc-Pcc

19 gltk
1 Pcc
3 Pcc

gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk
gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk
gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk
gltk gltk gltk Pcc gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk gltk

Feeding of a chick that wasn't hatched yesterday. No O⁺Pcc, 51
Mean or Mean in Response call of any sort 1/4:02

June 8, 1946

II

12a
① ¹²gile-¹³gile ¹⁴gile ¹⁵gile ¹⁶gile ¹⁷gile ¹⁸gile before attack - ¹⁹gile after attack
²⁰gile-²¹gile ²²gile ²³gile ²⁴gile ²⁵gile ²⁶gile ²⁷gile ²⁸gile ²⁹gile ³⁰gile ³¹gile
³²gile ³³gile ³⁴gile ³⁵gile ³⁶gile ³⁷gile before attack - ³⁸gile after attack ³⁹gile ⁴⁰gile ⁴¹gile

13
① ⁴²gile ⁴³gile ⁴⁴gile ⁴⁵gile ⁴⁶gile ⁴⁷gile ⁴⁸gile ⁴⁹gile ⁵⁰gile ⁵¹gile ⁵²gile
⁵³gile ⁵⁴gile ⁵⁵gile ⁵⁶gile ⁵⁷gile ⁵⁸gile ⁵⁹gile ⁶⁰gile

14a
① ⁶¹gile ⁶²gile ⁶³gile ⁶⁴gile ⁶⁵gile ⁶⁶gile ⁶⁷gile ⁶⁸gile ⁶⁹gile ⁷⁰gile ⁷¹gile
⁷²gile ⁷³gile ⁷⁴gile ⁷⁵gile ⁷⁶gile ⁷⁷gile ⁷⁸gile ⁷⁹gile ⁸⁰gile ⁸¹gile ⁸²gile ⁸³gile
⁸⁴gile ⁸⁵gile ⁸⁶gile ⁸⁷gile ⁸⁸gile ⁸⁹gile ⁹⁰gile ⁹¹gile ⁹²gile ⁹³gile ⁹⁴gile ⁹⁵gile
⁹⁶gile ⁹⁷gile ⁹⁸gile ⁹⁹gile ¹⁰⁰gile ¹⁰¹gile ¹⁰²gile ¹⁰³gile ¹⁰⁴gile ¹⁰⁵gile ¹⁰⁶gile ¹⁰⁷gile
¹⁰⁸gile ¹⁰⁹gile

② by two places but should just be noted, sandy, sandy, sandy, water

Letting gull sitting on type round, apparently to newly hatched chick
No attempt to disguise 4:32

There is extremely weak thing as a very low intensity gile call. Very slow, spaces between syllables, irregular. Found may be related to this. It may be a very low intensity but relatively apparent call

15
① ¹¹¹gile ¹¹²gile ¹¹³gile ¹¹⁴gile ¹¹⁵gile ¹¹⁶gile ¹¹⁷gile ¹¹⁸gile ¹¹⁹gile ¹²⁰gile ¹²¹gile
¹²²gile ¹²³gile ¹²⁴gile ¹²⁵gile ¹²⁶gile ¹²⁷gile ¹²⁸gile ¹²⁹gile ¹³⁰gile before attack - ¹³¹gile after attack

Very very dull now - 4:53, 5:32

16
① ¹³²gile ¹³³gile ¹³⁴gile ¹³⁵gile ¹³⁶gile ¹³⁷gile ¹³⁸gile ¹³⁹gile ¹⁴⁰gile ¹⁴¹gile ¹⁴²gile
¹⁴³gile ¹⁴⁴gile ¹⁴⁵gile ¹⁴⁶gile ¹⁴⁷gile ¹⁴⁸gile ¹⁴⁹gile ¹⁵⁰gile ¹⁵¹gile ¹⁵²gile ¹⁵³gile

Gull sitting, panting in sun, with wings outstretched, as well as up feathers very strongly ruffled. Possibly a new feather also. This looks very much like gile

17
① ¹⁵⁴gile ¹⁵⁵gile ¹⁵⁶gile ¹⁵⁷gile ¹⁵⁸gile ¹⁵⁹gile ¹⁶⁰gile ¹⁶¹gile ¹⁶²gile ¹⁶³gile ¹⁶⁴gile
¹⁶⁵gile ¹⁶⁶gile ¹⁶⁷gile ¹⁶⁸gile ¹⁶⁹gile ¹⁷⁰gile ¹⁷¹gile ¹⁷²gile ¹⁷³gile ¹⁷⁴gile ¹⁷⁵gile
¹⁷⁶gile ¹⁷⁷gile ¹⁷⁸gile ¹⁷⁹gile ¹⁸⁰gile ¹⁸¹gile ¹⁸²gile ¹⁸³gile ¹⁸⁴gile ¹⁸⁵gile ¹⁸⁶gile
¹⁸⁷gile ¹⁸⁸gile ¹⁸⁹gile ¹⁹⁰gile ¹⁹¹gile ¹⁹²gile ¹⁹³gile ¹⁹⁴gile ¹⁹⁵gile ¹⁹⁶gile ¹⁹⁷gile

Freeman's, June 13, 1955,
III



¹⁰ ¹⁷ ¹⁸ ²² ²³ ²⁴ ²⁵ ¹⁹ ²⁰ ²¹ ²¹ ²² ²³ ⁸ ⁹
gch gch gch OL OL OL OL O O O - OL O O T T



²³⁵ ²³⁶ ²³⁷ ²³⁸ ²³⁹ ²⁴⁰ ²⁴¹ ²⁴²
gch gch gch gch gch gch gch gch

Leaving 6:00 p.m.

