

ACC. NOS. 172586 and 176603

From: L. P. Schultz, U. S. National Museum, Washington, D.C.

38,709 fishes, crustaceans, reptiles, echinoderms, mollusca, corals, annelids, worms, coelenterates and algae collected by L. P. Schultz and Capt. Earl S. Herald during Crossroads Project 1946, in the Marshall Islands, Pacific Ocean. Cataloged in Fish Cat. 29.

Field Data Records on This Accession

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. ----- Tag No. ----- Sta. No. -----

State or Country: -----

County: ----- City: -----

Locality: -----

Drainage: ----- Date: -----

Water: -----

Vegetation: -----

----- Time: -----

Bottom: -----

Shore: ----- Current: -----

Distance from shore: ----- Tide: -----

Depth of capture: ----- Depth of water: -----

Method of capture: -----

Collected by: -----

Preservative: ----- Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Kodachrome ~~estates~~
film no

880.

S-46-62

S-46-210

S-46-260

1030-1 to 7

S-46-267

{ 1030-9 to 12
1031-1 to 7

S-46-286

{ 1031-9 to 12
1032 1 to 5

S-46-306

{ 1035-6 to 12
1033-1 to 12
1036-1 to 2

S-46-333

? 1063 1 to 12
1064?

S-46-483

6259 (9)

6260 -1-12

S-46-508

6251 1-12

6261 1-12

6262 (9)

S-46-533

6274

6275

6276

S-1019

6263 -1019

6264 1-12

S-1041

6265 1-12

6272 1-12

6273 1-12

S-46-379

{ 1066 - 1812
1067 - 186

S-46-361

{ 1067 - 7 12
1068 - 1 12
1069 - 1 5 12

S-46-405

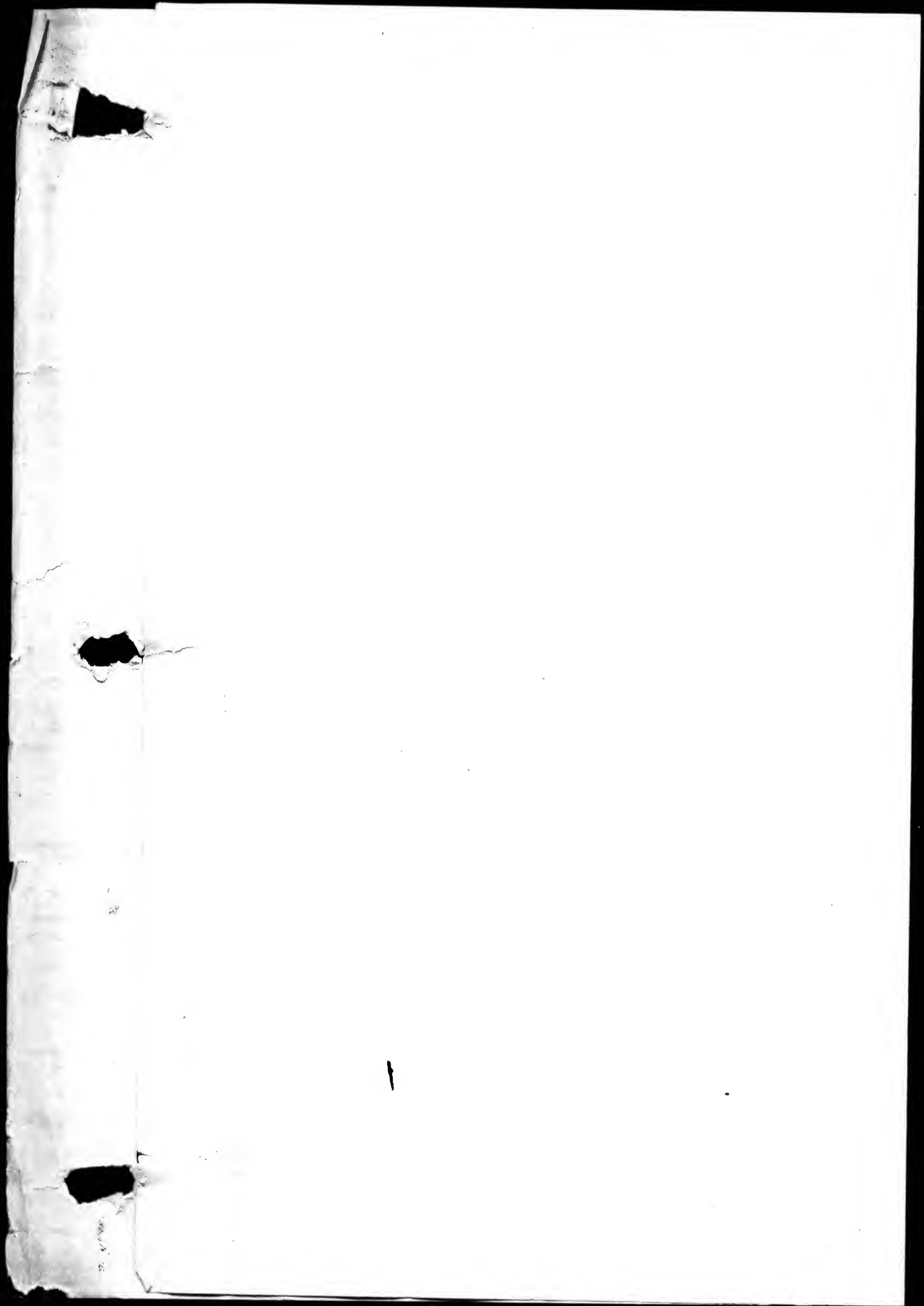
6254 - 1 5 12?
6255 - 1 8 6?

S-46-422

? 6256 (19 1/2)

S-46-442

6258 - 1 8 12
6260 - 1
6259 - 1



The following number of species were collected in the Phoenix and Sambar Islands by poisoning with Rotenone.
Data taken from my report on the 1939 Phoenix & Sambar Islands Fishes.

Canton Island

April 23- May 12 in lagoon - 47
April 25-28 - Ocean surface reef - 58
May 13 - Wide channel reef - 40
May 25-26 - Lagoon - 26
May 23-26 - Lagoon coral heads - 70

Swains Is.

May 3-9 - reef - - - 76

Enderbury Is.

May 15-19 - reef - - - 81

Faiala Is.

June 1 - Paga Paga reef - 56
June 2 - Fagasa reef - 47
Alofa reef - - - 113
Pagai reef - - - 53

Rose Is.

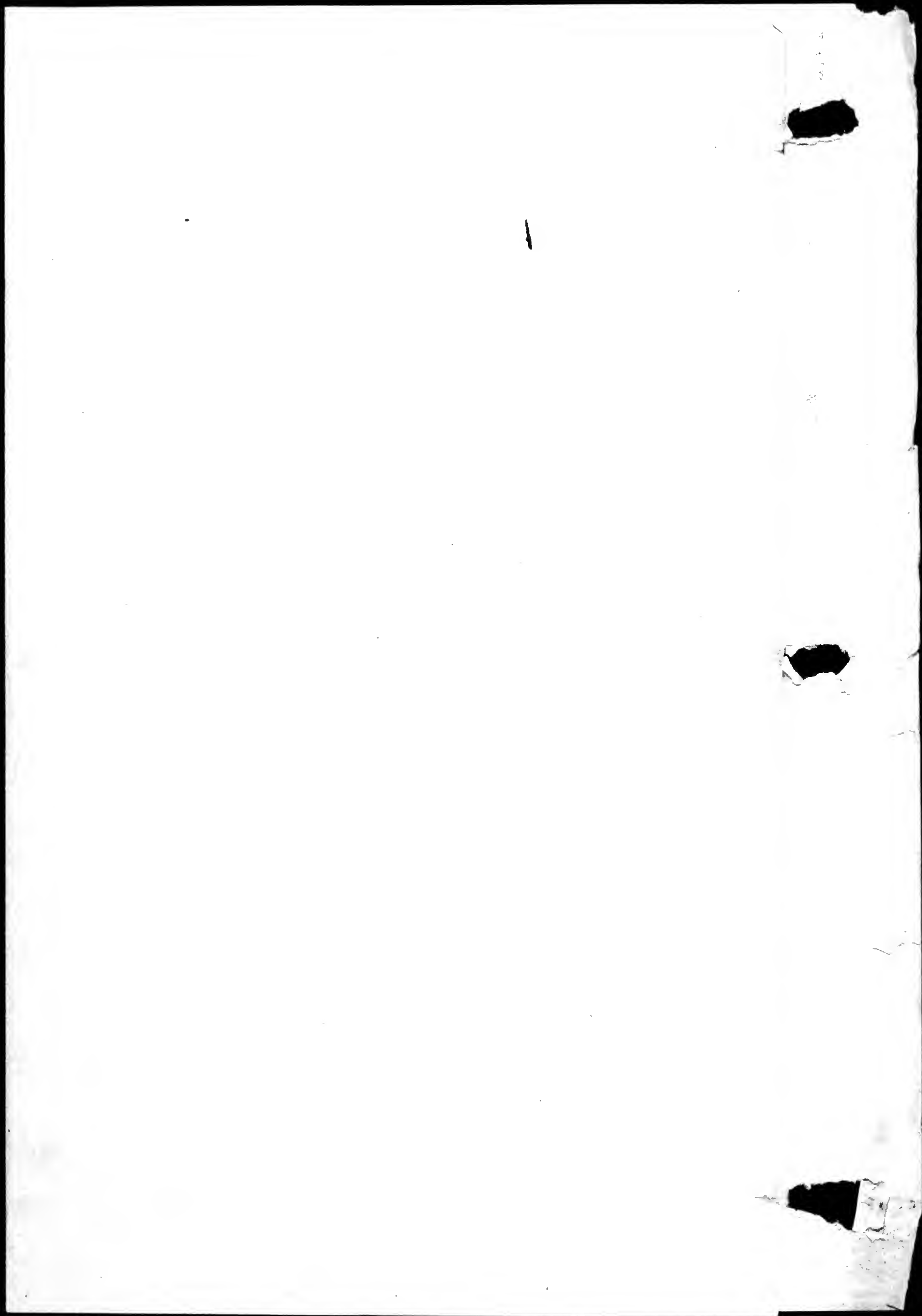
June 11-14 - reef - - - 109
June 12-20 - lagoon - - - 62

Tau Is.

June 27 - Siulogi reef - - 84

Hull Is.

July 8-12 Channel reef - - - 57
" 7-17 Channel reef - - - 63
" 12-15 Ocean reef - - - 68



Estimated no - 50

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____

Tag No. S-46-2

Sta. No. _____

State or Country: Bikini Atoll lagoon

County: _____

City: _____

Locality: eastern end of lagoon off Bikini Island out to Big Channel at Entrance

Drainage: _____

Date: March 11-31 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____

Current: _____

Distance from shore: 1/2 mile

Tide: _____

Depth of capture: bottom

Depth of water: 100 feet

Method of capture: Hook and line fishing - Crew of Bowditch

Collected by: V. S. Bowditch - V. Brock and J. Marr

Preservative: L. P. Schultz

Temp: _____

Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

snapper - Lutjanus

~~2 balllike sea urchins~~
~~not tagged S-46-7~~

groupers - Ephinephelus

labrid - short body - and broad caudal

sea bass -

blue lined snapper - L. spilurus

goatfish -

Alia - Caranx

Kyphosus

Kuhlidae

Mulletts

Lagocephalus - S-46-15

S-46-12 and 14

Two large tuna taken on March 16 of unknown species

Pig fish (~~S-46-11~~) - S-46-11. Letrinus

Echeneis - S-46-13

over.

This collection represents the specimens brought to me from the eastern end of the lagoon by fishermen fishing off the Bowditch, as well as some collected by Brock and Morr, myself and enlisted men. Because of the general nature of the collecting I can not use these specimens in - unit of effort - fishing.

The monacanthid in life was brown with a yellow eye, pale yellow fins, translucent; caudal fin with yellow margin, ~~and~~ enclosing black lines arranged obliquely, a submarginal back band, basal $\frac{2}{3}$ orange.

tin tagged fish -

- S-46-16 and 17 - tuna
- S-46-18 - tuna
- S-46-19 - *Caranx*
- S-46-20 - *Echeneis*
- S-46-21 - *Elegatis bipinnulatus*
- S-46-22 - grouper
- S-46-23 - *Lutjanus*
- S-46-24 - *Tylosurus*
- S-46-30 - Tuna
- S-46-31 - tuna
- S-46-32 - tuna
- S-46-33 - tuna
- S-46-34 - *Chromis*? Leatherjacket

fish 1

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-1 Sta. No. _____

State or Country: North Pacific Ocean

County: _____ City: _____

Locality: Lat. 20° 17' 45" N; Long 162° 28' 45" W

Drainage: _____ Date: March 2, 1946

Water: _____

Vegetation: _____ Time: 11:00 AM.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: surface Depth of water: _____

Method of capture: trolling at 11 knots with lure

Collected by: U. S. S. Bowditch - ~~Robert M. ...~~

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

1 specimen of yellowfin tuna -
photographed in color.

Thunnus macropterus

FISHES-----OPERATION CROSSROADS

CROCK CONTENTS

Crock No. One (1)
Scarids--Parrot Fishes

~~3 83~~
~~9 84~~
~~27 261~~
~~62 1 with tag lost~~
~~63~~
~~64~~

Crock No. Two (2)
Serranids

~~22 88 186~~
~~36 96 207~~
~~40 107 208~~
~~50 154 229~~
~~52 179~~

Crock No. Three (3)
Serranids

~~24 276~~
~~187 296~~
~~220 328~~
~~237 350~~
~~243 390~~

Crock No. Four (4)
Snappers--Haemulids

~~8 170 234~~
~~23 171~~
~~25 172~~
~~28 227~~
~~157 228~~

Crock No. Five (5)
Tunas--Mackerals--Bonitas

~~1 32 101~~
~~14 33~~
~~16 76~~
~~17 82~~
~~18 100~~

Crock No. Six (6)
Carangids

~~19 77 87 205~~
~~21 79 90 244~~
~~30 80 102 461~~
~~31 81 117~~
~~70 86 161~~

Crock No. Seven (7)
Carangids

~~34 239 387~~
~~71 240 388~~
~~162 283~~
~~199 285~~
~~208 385~~
~~233 386~~

Crock No. Eight (8)
Fistulariids

~~92~~
~~261~~
~~255~~
~~349 (67 juveniles)~~

Crock No. Nine (9)
Sharks

~~88~~
~~89~~
~~90~~
~~91~~
~~92~~

Crock No. Ten (10)
Sharksuckers

~~13 178 458~~
~~20 185~~
~~118 189~~
~~160 190~~
~~177 191~~

Crock No. Eleven (11)
Needlefish--Banacudas--Puffers

~~29 51 277 Banacuda~~
~~47 396 "~~
~~173 15 Puffer~~
~~230 45 Porcupine fish~~
~~256 67 " "~~
~~257 329 " "~~

Crock No. Twelve (12)
Miscellaneous

~~4 Zebrasoma veliferum~~
~~308 Monacanthus~~
~~113 Acanthurus nigricans?~~
~~155 " " ?~~
~~176 Trigger Fish~~
~~211 " "~~
~~304 Naso~~

~~TABLE CONTENTS:~~

- ~~546-477 ~~not in table of contents~~~~
- ~~72 Tuna~~
- ~~78 Dolphin~~
- ~~73 Rainbow Runner (*Elaeatis bipinnulatus*)~~
- ~~74 Dolphin~~
- ~~180 White-tip shark (6 sp. in 2 sections)~~
- ~~210 Barracuda (5 sp. in 2 sections)~~
- ~~546-477 ~~not in table of contents~~~~
- ~~546-460 Balistes~~

~~Big Tuna~~
~~manta ray 519~~
~~sting ray 546-421~~

~~Big Tuna~~
~~546-421~~
~~Tunas etc~~

Crocks 12
~~157A ~~not in table~~~~
 329 ~~not in table~~
 45 " "
 67 " "

~~Crocks 12~~
~~Barracuda~~
 567, 568
 HA 73 - 9 spec.
 277
 396

~~75 Tuna~~

~~Crocks 13~~
~~Scorpaena~~
 486 463
 487 465
 488 409
 464
 466
 462

Index continued

S-46-233 & 236 see S-46-222.
S-46-237 - also 243, 244 June 27
S-46-238 - June 28
S-46-239, 240 June 28
S-46-241 - June 29
S-46-242 June 28
S-46-243-244 see S-46-237

⁴⁶S-399-400 see S-46-189

S-46-401 - see S-46-8

S-46-402 - a station number added upon ~~see~~ return.

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Sta. No.

Tag No. 5-46-220

City:

San Diego

State or Country:

California

Locality:

Agua Fria near center of Laguna

Drainage:

Water:

Vegetation:

Time:

Bottom:

Shore:

Distance from shore:

Current:

Depth of capture:

Depth of water:

Method of capture:

Collected by:

Temp:

Air:

List of species or kinds, with tag numbers if drawn or discussed:

Index To Serial Numbers

Bikini

S-46-98 - April 19

S-46-100, 101 - see S-46-93

S-46-102, 103 - see S-46-72

S-46-104, 105, 106 - see S-46-96

● S-46-107 - see S-46-98

S-46-108 - April 23

S-46-109 - April 1946

S-46-110 - April 17

S-46-111 - April 23

S-46-112 - " 24

S-46-113 - " 24

S-46-114 - " 25

S-46-115 - " 24, 25

S-46-116 - " 26

S-46-117 - see S-46-72

S-46-118 - " S-46-72

S-46-119 - April 29

S-46-120 - May 1

S-46-121 - May 4

S-46-122 - May 5

S-46-123 - May 7, see S-46-72

S-46-124 - May 8

● S-46-125 - May 10

● S-46-126 - May 11

S-46-127 - May 13-14

S-46-128-152 - May 14

S-46-153 - May 1

S-46-154-157, May 20, Envelopes.

S-46-158 - May 19

S-46-159 - May 20

S-46-160-173; May 20 see S-46-154, 176;

S-46-174 - May 21 ~~S-46-154~~

S-46-175 - May 22

S-46-176 - May 23 - see S-46-154

S-46-177-179 May 23, 25 see S-46-154

S-46-180 - May 26, also 185; 190-194 May 26-30

S-46-181 - May 25

S-46-182 - May 23

● S-46-183 - May 24

● S-46-184 - May 25

S-46-185 - May 26-30

S-46-186 - May 28

S-46-187 - May 29

S-46-188 - May 29

S-46-189 - May 30

S-46-190-194 see 180
 S-46-195 - June 2
 S-46-196 - June 2
 S-46-197 - June 1, also 205 & 206
 S-46-198 - June 3, also 207-8 ✓
 S-46-199 - see 180
 S-46-200 to 204 - see 186
 S-46-205-6, see S-46-197
 S-46-207-8, see S-46-198
 S-46-209 - June 7
 S-46-210 - June 6
 S-46-211 - see S-46-157
 S-46-212 - May 3 - Bikini
 S-46-213 - June 16.
 S-46-214 " "
 S-46-215, 229, 230 June 17
 S-46-216 June 18
 S-46-217, 218, 219 June 18
 S-46-220 - June 19
 S-46-221 June 20
 S-46-222-228 - June 16 to ; also 233 & 236.
 S-46-229-230 see S-46-215
 S-46-231 - June 20
 S-46-232 - June 21

Acc. No. _____ Tag No. _____ Sta. No. _____
 State or Country: _____
 County: _____
 City: _____
 Locality: _____
 Drainage: _____
 Date: _____
 Water: _____
 Vegetation: _____
 Time: _____
 Bottom: _____
 Shore: _____
 Current: _____
 Distance from shore: _____
 Tide: _____
 Depth of capture: _____
 Depth of water: _____
 Method of capture: _____
 Collected by: _____
 Preservative: _____
 Temp: _____
 Air: _____
 List of species or kinds, with tag numbers if drawn or discussed: _____

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

acc. 172586 for 1946

acc. 176603 for 1947

Index to serial numbers.

- S-46-1 - March 2, 1946
- S-46-2 - March 11; S-46-11 & 14; 15 to 23; 29 to 34
- S-46-3 to 6, March 12
- S-46-7 March 11
- S-46-8, March ~~15~~ 16; S-46-24 & 28
- S-46-9, March 19; S-46-35 to 40
- S-46-10; March 20.
- S-46-11 & 14 - see S-46-2
- S-46-15 & 23 - " " " " metal tag S-46-15 belongs with S-46-2
- S-46-15, March 22; S-46-45
- S-46-24 & 28 see S-46-8
- S-46-29 to 34 see S-46-2
- S-46-35 & 40 see S-46-9
- S-46-41 March 25
- S-46-42 March 26
- S-46-43 March 28
- S-46-44 March 29
- S-46-45 - see S-46-15
- S-46-46 March 30.
- S-46-47 April 1
- S-46-48 April 2 also S-46-67 & 69
- S-46-49 " 3
- S-46-50, 70, 71, " 3
- S-46-51 " 4
- S-46-52, 88, 89, 92 " 6
- S-46-53, " 6-7; S-46-57 to 60
- S-46-54 " 6; S-46-61 54 & 56,
- S-46-62 & 66. " 7
- S-46-67 & 69 - see S-46-48
- S-46-70, 71 - see S-46-50
- S-46-72-87 - April 1 to 22; also 102, 103, 117, 123
- S-46-88, 89, 92 - see S-46-52
- S-46-90 & 91 - April 6
- S-46-92 - see S-46-88
- S-46-93 - also 100, 101 - April 13.
- S-46-94 - April 15
- S-46-95 - April 15
- S-46-96 - April 16, also # 104, 105, 106
- S-46-97 - " 17
- S-46-98 - " 18, also # 107

Estimated no. 20

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-3(5)6 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll City: _____

Locality: Enyu Island lagoon

Drainage: _____ Date: March 12, 1946

Water: _____

Vegetation: _____

Time: 2 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 30 feet Depth of water: _____

Method of capture: Diving and spearing

Collected by: Vernon Brock U.S.S. Bowditch

Preservative: _____ Temp: 81 or 82° Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Tagged fish:

S-46-3 - Bluegreen parrot fish - Scarus - photo

S-46-4 - Zebriasoma veliferum - surgeon fish

Pomacanthus imperator

S-46-5 - Pygoplites diacanthus - photo

S-46-6 - sea cucumbers out of whose intestine a pearl fish was obtained and

this is to be wrapped separately

untagged were one each of Balistes ocellatus;

Pomacanthus imperator

Pygoplites diacanthus; a serranid with

two oblique, white, with dark edges, bars across caudal fin.

2 specimens

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-7 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: North side of lagoon

Drainage: _____ Date: March 11, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 15 feet Depth of water: _____

Method of capture: Diving - 15 feet

Collected by: U.S.S. Bowditch - V. Brock

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Globular echinoderm - dark reddish
color with olive patches - tagged with
S-46-7, another not tagged but same
to be wrapped with tagged one.
Note - these both were wrapped separately.

849 specimens preserved
17 " discarded
866

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

For description of
reef see note books.

Acc. No. _____ Tag No. S-46-8,24 to 28; 40; Sta. No. _____

State or Country: Marshall Islands

County: Enyu Island City: _____

Locality: at reef at entrance; just inside lagoon.

Drainage: _____ Date: March ~~15~~ 16/1946

Water: 300 feet of rocky creviced reef 30 feet
depth. Was poisoned with 50 lb. cube root.

25 feet out and 15 feet down. Time: 7:15 to 12:00 hours.

Bottom: _____

Shore: _____ Current: slight

Distance from shore: on reef edge Tide: + .9 at 8 AM.

Depth of capture: to 20 feet Depth of water: _____

Method of capture: Cube root 5.2 rotenone 45 lb. used

Collected by: V.S.S. Bowditch-Schultz, Brock & Morr and

Preservative: 6 other men. Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: 32 gallons of fish.

Following discarded: Standard lengths mm.

denochaetus strigosus -
150-11
155-1111
160-11
135-1
170-11
140-1
175
180-1

Scarus - plain dark brown to blackish

180-1 185-1
115-1 140-1

A parrot fish and goat fish
were packed without tags.

They belong in this collection.

203 sea cucumbers

1 - octopus of fair size and a few very small ones

2 - slate pencil sea urchins

Crabs - a few specimens

spiny lobsters seen on reef but none taken.

1 - tiny geko (lizard)

Species of fish too numerous to list now -
may have time when packing them.

Following tin tagged fish

S-46-24 - *Varigale loutin* - 410 mm.

S-46-25 - *Lutjanus* ^{*pallopterus*} with orange fins,
a few scales black blotched - 355 mm.

S-46-26 - *Lutjanus* ^{*niger*} blackish - 410 mm.

S-46-27 - *Scarus* - plain bluegreen 440 mm

S-46-28 - *Lutjanus* ^{*gibbus*} 325 mm.

Following fish measured when wrapped for shipping, also counted as follows.

Acanthuridae

221-230 - 1

211-220

201-210

191-200 - 1

181-190 - 1

171-180 - IIII

161-170 - IIII

151-160 - IIII

141-150 - IIII II

131-140 - IIII I

121-130 - III

111-120 - 1

101-110 - II

91-100 - IIII

81-90 - III

71-80 - IIII

61-70 - IIII

51-60

41-50 - III

31-40 - II

21-30

11-20

Holocentrus

231-240 - 1

230

220 - III

210 - II

200 - II

190 - II

180 - 1

170 - 1

160

150 - III

140 - II

130 - II

120 - III

110 - III

100 - IIII

90 - IIII

80 - 1

70 - 1

61-70 - 1

51-60 - 1

41-50 - 1

31-40

21-30

11-20

Myripristis

III

IIII

IIII IIII

IIII

IIII

IIII IIII

IIII IIII IIII IIII

IIII

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Holotrachys

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Continued S-46-8

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-8 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: March 16, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Description of reef -

The area poisoned consisted of a rock ledge deeply creviced and eroded with rich growth of Halimeda (algae). These crevices varied from a few inches to a foot or two in width, with big waves surging up and down and in and out, washing the poison down to the bottom of this ledge to a depth of 15 feet. The poison was effective for 300 feet and out from the ledge 75 feet. It drifted slowly seaward and was soon diluted to in effectiveness. The

Continued

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. Tag No. S-46-8 Sta. No.

State or Country:

County: City:

Locality:

Drainage: Date:

Water:

Vegetation:

Time:

Bottom:

Shore: Current:

Distance from shore: Tide:

Depth of capture: Depth of water:

Method of capture:

Collected by:

Preservative: Temp: Air:

List of species or kinds, with tag numbers if drawn or discussed:

Following fish measured & counted when wrapped for shipment.

Pomacanthidae
61-100-1
90
80-III
70
60-III
50-II
31-40-II
21-30-II

Publia
61-70-1
60
50-III
40-III
30-III
20-II

Balistidae
101-110-1
Moraacanthidae
61-70-1
60
41-50-1
Tetraodontidae
51-60-1
41-50-III

Synodontidae
91-100-1
90-1
80-1

Scalabrus blennius
121-130-1
120-1
110-III
100-III
90-III
80-III
70-III
60-III
50-III
40-III
30-III
11-20-II

Dinematichthys
81-90-II
80-III
70-
60-III
50-III
40-III
21-30-III

Chaetodontidae
91-100-1
90-II
80-II

Cirrhitidae
71-80-1
70-
60-1
50-1

Miscellaneous fishes counted, number of specimens.

Scaly blennies - 27

Miscellaneous species of several kinds } 69

Apodes - 22

Ophichthyidae - 3

Moringuidae - 5

1/2

$$\text{Tentative Index of Relative Abund.} = \frac{\text{Total fish picked up}}{\text{Area in sq. yds.} \times \text{man hours}}$$

Actual # of men picking up fish at one time was 5 over period of 4 hrs.

$$\frac{856}{1000 \times (25 \times 100 \text{ yds}) (5 \text{ men} \times 4 \text{ hrs.})} = .046$$

$$\text{Index of Abundance} = \frac{856 \text{ # fish}}{\text{Area in sq. yds}} = \frac{856}{2500} = .3424$$

$$\frac{856}{100 \text{ yds} \times 16} = \frac{856}{1600} = .535$$

601 specimens preserved in this collection
 544 " discarded in field. FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

1145

Acc. No. _____ Tag No. S-46-9; ^{35 to 40} Sta. No. _____
 State or Country: Marshall Islands
 County: ^{Cape Erik} _____ City: _____
 Locality: Enirikku Island at western end
 on ocean side - area 100ft by ~~250ft~~ ^{200/9}
 Drainage: _____ Date: March 19, 1946
 Water: 30 pounds of cube root used.
 Vegetation: Algae, corals, shells, in abundance
 Time: 10:30 to 1:30 P.M.
 Bottom: Also sand among corals.
 Shore: Reef Current: _____
 Distance from shore: 300 feet Tide: +.9 low
 Depth of capture: ~~1ft~~ to 4 feet Depth of water: _____
 Method of capture: Poisoned about 300' strip of reef*
 Collected by: Schultz, Brock and party totaling _____
 Preservative: 5 men for 3 hours Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

We went through the collection made 21 and counted out 134 species of fishes. We preserved 16 gallons of fishes
 * with 30 pounds of cube root.
 The following were discarded

Abudefduf - black with slightly ~~black~~ caudal fin, some with bright blue specks, eye yellow
 65-85 mm - 269 specimens

Epiniphelus with large brown hexagonal blotches.
 70-80mm - 3 61-70mm - 7
 81-90 - 7 111-120 - 6
 91-100 - 13 121-130 - 7
 101-110 - 3 131-140 - 3

Surgeon fish with 2 dark spots, blue ^{one black at} base of dorsal & anal fin posteriorly at peduncle, young with tiny yellow specks.
mm 60-70 - 5 81-90 - 7
 71-80 - 11 91-100 - 7

Discarded (continued)

Scarus - parrotfish, dark colored most of scales with brown blotch, underside of head reddish around lips.

71-80 mm - 1	121-130 - 33
81-90 - 2	131-140 - 10
91-100 - 7	141-150 - 26
101-110 - 19	151-160 - 5
111-120 - 31	

Scarus - parrotfish, green blotches on scales, green streaks from lips & eye, thinned 3 posteriorly, two yellow blotches below dorsal on back.

200-210 mm - 2
191-200 - 3
171-180 - 2

Scarus with green blotches on scales

160-170 - 3

Scarus - scales with red or brown blotches.

120-130 - 1	181-190 - 5
160-170 - 2	191-200 - 3
171-180 - 3	

Mullidae - goatfish with yellow streaks on sides

131-140 - 1	161-170 -
141-150 - 7	171-180 - 2
151-160 - 2	181-190 - 1

Mullidae - goatfish with 2 or 3 dark bars posteriorly

90-100 - 2	131-140
101-110 - 3	141-150
111-120 - 14	151-160
121-130 - 4	161-170 - 1
	171-180 - 1

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-9 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: March 19, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Description of reef.

The reef on the western tip of Eniwetok island, ocean side is made up of an abundant growth of coral heads, branching types, and solid ones; these are so close together that it is difficult to walk between them. The bottom is sandy in places, but otherwise rocky with algal growths. The shore is composed of coral ~~slabs~~ slabs partially eroded with a few very superficial tide pools of very small size. At low tide this outer reef was covered with 1 foot to 4 feet of water which flowed westward and

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-9 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Following fish measured & counted when weighed

Scaridae
 211-220-1
 210-11
 200-11
 190-1
 180-1
 170-1
 160-1
 150-1
 140-111
 130-111 111
 120-1111
 110-111 111
 100-1

Holocentrus
 141-150-1
 140-
 130-11
 120-1111
 110-1
 100-1
 90-1
 80-1
 70

Holotrachys
 71-80-1
 61-70-
 51-60-1

Miscellaneous specimens
 Counted but not measured
 Aphodes - 66
 Moringuidae - 5
 Aphichthyidae - 4
 Fistularia - 2
 Aulostomas - 3
 Hemiramphidae - 2
 Tetraodon - 5
 Miscellaneous species - 65
 Specimens.

Kuhlia
 101-110-1
 100-1
 40-1
 2130-1

Balistidae
 111-120-1

ML

Scaleless blennies

- 101-110-1
- 100-11
- 90-1
- 80-11
- 70-###1
- 60-1111
- 50-###1
- 40-111
- 30-
- 20-1

Apogonidae

- 91-100-1
- 90-11
- 80-
- 70-11
- 60-1
- 50
- 40
- 30-###11
- 11-20-1

Tentative index of # fish relative abund. = $\frac{1145}{\text{Area} \times \text{Man hrs}} = \frac{1145}{33 \times 100 \times 16} = 0.23$

Index of # fish = 1145
 Abundance = $\frac{1145}{\text{Area in sq yds}} = \frac{1145}{3300}$

Tagged fishes

- S-46-9 - bluegreen parrot fish - 345 mm
- S-46-35 - parrot fish - 285 mm
- S-46-36 - Serranid - blue spotted, white edge on soft dorsal and caudal - 340 mm.
- *S-46-37 - Mugilid - crenulate lips - 295 mm.
- S-46-38 - Pomacanthus imperator - 250 mm.
- S-46-39 - Flying fish picked up on beach
- S-46-40 - Serranid - 290 mm.

362 fishes preserved -
454 fishes discarded,

816

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-10 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll (Eniwetok) City: _____

Locality: Eriirikbu Island; a part of the lagoon cut off at low tide amounting to
Drainage: about 1/2 acre. Date: March 20, 1946

Water: _____

Vegetation: none

Time: 10:30 - 1 P.M.

Bottom: sand of soft nature, with gravel of
stone porous nature, no corals. Current: none

Distance from shore: _____ Tide: low 7.10

Depth of capture: to 2 or 3 feet Depth of water: _____

Method of capture: Poison, 30 pounds used.

Collected by: Schultz, Brock, and Party.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The following specimens were discarded after measuring and counting. These species same as others preserved.

Siganus 210 - 270 mm - 17

Mullidae - goatfish with yellow lateral struals

80 - 100 - 90

101 - 130 - 60

131 - 150 - 87

151 - 220 - 54

Chelon - mullet with pinkish lower jaw at death

140 - 170 mm - 19

81 - 90 - 7

91 - 100 - 17

171 - 200 - 25

101 - 110 - 5

111 - 120 - 4

121 - 130 - 3

Pomacentrid - bluegrey plain

60 - 90 mm - 27

over

Discarded (Continued)

Abudefduf with 5 vertical dark stripes or bars with greyish-yellow interspaces.

80 mm - 1 145 mm - 1
125 mm - 1

Epinephelus with hexagonal brown blotches.

56-60 mm - 2	106-110 mm - 2
61-70 - 3	111-120 - 2
71-80 - 1	121-130 - 2
81-90 - 2	131-140 - 1
91-100 - -	141-150 - -
	161-170 - 1

Lutjanus - with the black blotch on lateral line under rear of spiny dorsal fin.

71-80 mm - 1	131-140 - 1
81-90 - 3	141-150 - 1
91-100 - 1	151-160 - 1
101-110 - 1	161-170 - 1
111-120 - 3	171-180 - 4

$$\text{Tentative index of Relative Abundance} = \frac{816}{2420} \times 3 \times \frac{24}{2} = 0.45$$

$$\text{Index of Abundance} = \frac{\text{total fish}}{\text{area in sq. yds}} = \frac{816}{2420} = 0.336$$

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-10 Sta. No. _____
 State or Country: _____
 County: _____ City: _____
 Locality: _____
 Drainage: _____ Date: March 20, 1946
 Water: _____
 Vegetation: _____
 Time: _____
 Bottom: _____
 Shore: _____ Current: _____
 Distance from shore: _____ Tide: _____
 Depth of capture: _____ Depth of water: _____
 Method of capture: _____
 Collected by: _____
 Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Following fishes measured and counted when wrapped for shipment

Serranids	Lutjanus	Pomacentrids	Labridae
211-220-1	171-180-1	131-140-1	104-110-11
210	170-1	130-11	100- 111 1111
200	160	120	90-111
190	150	110	80-111
187	140-1	100	70- 111 11
170-1	130	90- 111 111	60- 111 1
160	120	80- 111 1	50-1111
150	110-1	70- 111 11	40- 111 1
140-1	100	60- 111 1	30-11
1	90	50-11	
80-11	80-1	40-11	
70	70-1		
60-1	60-1		
50			
40-1			

Miscellaneous
(6)

<p>Corangidae</p> <p>91-100-1</p> <p>81-90-1111111</p>	<p>Alogonidae</p> <p>71-80-1111</p> <p>61-70-111</p> <p>51-60-1</p>	<p>Apodes (10)</p> <p>Ophichthyidae - 174</p>
-------------------------------------------------------------------	---------------------------------------------------------------------	-----------------------------------------------

[Signature]

Mugilidae

161-170-1111
160-
150-1
140-11
130-1
120-11
110-11
100-1111
90-1111
80-111
70-
60-
50-1111
40-111
30-1

Mullidae

161-170-1
160-1
150
140-1
130-1111
81-90-1111
71-80-1111

Holocentrus

141-150-11

Lethrinidae

151-160-1
131-140-1

Siganus

221-230-11
211-220-11
210-1
200-1

Gerres

141-150-1
140-
130-1
111-120-1
61-70-1

504 specimens fish preserved.

54 specimens discarded

558

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No.

Tag No.

Sta. No.

State or Country: Marshall Islands

County: Bikini Atoll

Locality: Reef on outer side of Bikini among scattered coral heads.

Drainage:

Date: March 22, 1946

Water:

Vegetation:

Time: 12 & 3 P.M.

Bottom:

Shore:

Current: moderate

Distance from shore: 1/3 mile

Tide: 7/1.2 low

Depth of capture: 4 fathoms

Depth of water:

Method of capture: 30 lb. poison on reef

Collected by: Schuth, Brock and party - 3 men picking

Preservative: up for 2 hrs. 1 man / hr. ledger.

Air:

List of species or kinds, with tag numbers if drawn or discussed:

We poisoned a strip ^{av. 150 feet} 50 ~~to~~ 200 feet wide for 1500 feet ~~wide~~, the cloud of cubé drifting slowly and dispersing gradually. 8 gallons preserved. Following discarded specimens were counted and measured.

Halfbeaks - tip of lower jaw reddish - same as others preserved. only small portion of school picked up & measured.

231-240 - 2
241-250 - 4
251-260 - 7
261-270 - 8

271-280 - 2

Abudefduf - black with yellow eye.

41-50 - 4
51-60 -

61-70 - 4
71-80 - 4

over

Acanthurus with dark blue spot near base anal and dorsal fins

41-50 - 1 61-70 - 2
51-60 - - 71-80 - 4

Squirrel fish with several red stripes

81-90 - 3
91-100 - 2

Epinephelus - brown blotches of hexagonal shape.

91-100 - 3
101-110 - 2
141-151 - 2

Following specimens, measured and counted when wrapped for shipment. S-46-45 - Niodon

Henirhamphus chaetodontidae hystrix - 360 mm.

291-300 - 1
290 - -
280 - II
270 - IIII
260 - IIII
250 - IIII
240 - IIII
230 - 1
220 - 1

151-160 - II
150 - II
140 - 1
1
110 - III
1
80 - 1
70 - 1
60 - 1

Myripristis
141-150 - 1

Miscellaneous

(76)

Epinephelus

171-180 - 1
170 - 1
160 -
150 - III
140 - IIII
130 - 1
120 - 1
110 - 1
100 - III
90 - III
80 - IIII
70 - IIII
60 - IIII
41 50 - IIII
31 - 40 -

Holocentrus

201-210 - 1
111-120 - II
110 - III
100 - IIII
90 - IIII
80 - IIII
70 - IIII
60 - IIII
50

Pomacentridae

71-80 - IIII IIII IIII
70 - IIII IIII IIII IIII IIII
60 - IIII IIII IIII IIII
50 - IIII IIII
40 - IIII IIII
30 - 1

Apozonidae

91-100 - II
90 - IIII
80 - IIII
70 - IIII
60 - IIII
50 - IIII
40 - IIII
30 - IIII

Pomacanthidae

61-70 - 1
60 - IIII
50 - II

Continued next page

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-15 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: March 22, 1946

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Description of reef.

The reef on outer side of Bikini ~~atoll~~ ^{island} is a very broad one, in places nearly a mile wide, perhaps $\frac{2}{3}$ mile, and level and little pitted with depressions. In places numerous thin coral slabs are strewn about the reef. The place that we poisoned was covered with about 2 to 4 feet of water with scattered coral heads rising 2 to 3 feet in the water. These corals were separated by channels of water 10 to 50 feet wide, and the bottom of this area covered with a thin layer of sand (coral). The coral heads were seldom more than

2 * 4 feet, a few 10 feet, in diameter, but not very luxuriant. The wind blew so hard that it was necessary to pick up the fish from the bottom by means of a face mask. The area poisoned consisted of a cloud of cubic root (30 lb) spread at the start 50 feet wide - drifting for a 1/3 mile and dispersing to a width of 400 feet, effective perhaps even further but the tide came in making working conditions not practical.

Following measured and counted when wrapped.

Acanthuridae	Lobidae	Paraperis
191-200-1	141-150-1	121-130-1
120-II	110-II	120-1
110-	100-1	110-III
100-	90-II	100-III
90-1	80-III II	90-II
80-III III	70-III	80-
70-III III	60-III 1	70-1
60-III	50-III III III III	
50-III III 1	40-III III	
40-1	21-30-III	

Balistidae

- 151-160-1
- 141-150-1

apods
about 20?

- Scarus
- 111-220-1
 - 120-1
 - 110-II
 - 100-1
 - 90-
 - 80-1
 - 70-II
 - 60-1
 - 50-1

$$\frac{\text{Total index}}{\text{relative ab.}} = \frac{558}{500 \times 50 \times \text{avg. sq. yds.}} = \frac{558}{25000} = 0.0223$$

2 specimens

INVERTEBRATES

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-41 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Lagoon City: _____

Locality: Eastern end

Drainage: _____ Date: March 25, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 30 feet Depth of water: _____

Method of capture: Living - later dissection

Collected by: V. Brock and J. P.

Preservative: 70% alcohol Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

There was brought to the surface by Vernon Brock a large *Tridachna* weighing at least 250 or 300 lbs. While it was on deck I found a small crab in the mantle folds and V. Brock found the shrimp on the deck after dissecting out the flesh. Both were preserved in 70% alcohol.

~~Estimated No 100~~ 93 fish preserved
2 discarded

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-42 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Coral heads in eastern end of lagoon
at depth 20 & 25 feet

Drainage: _____ Date: March 26, 1946

Water: _____

Vegetation: _____

Time: AM & P.M.

Bottom: Coral head in deep water

Shore: _____ Current: slight

Distance from shore: 1 mile Tide: _____

Depth of capture: to 30 feet at most Depth of water: _____

Method of capture: Diving by Vernon Brock

Collected by: Vernon Brock and L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Discarded one bluegreen parrot fish 200 mm.
Holocentrus - 160 mm.
S-46-42 - brown blotched grouper with
bars dorsally
Other specimens bear paper labels with
S-46-42.

3 specimens fish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-43 Sta. No. _____

State or Country: Bikini Atoll

County: Anchorage of Bowditch about 1 mile

Locality: off Bikini Island

Drainage: _____ Date: March 28, 1946

Water: _____

Vegetation: _____

Time: 10-11 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: Surface Depth of water: _____

Method of capture: Light at gangplank of ship - dip net

Collected by: Schultz and Brock

Preservative: alcohol Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

3 fish + 100 invertebrates?

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-44 Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Eastern end of lagoon; dredging

Drainage: _____ Date: March 29, 1946

Water: _____

Vegetation: _____

Time: 1000 to 1430

Bottom: Coral, algae, sponge, etc

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 180 to 200 feet Depth of water: _____

Method of capture: Dredge - 3 hauls totaling 20 minutes

Collected by: Schultz on AGS 13

Preservative: Alcohol and formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The dredge hauls are marked on my chart and lie in deep water in eastern end of lagoon.

The dredge used was made on the U.S.S. Bowditch and netting and canvas skirt sewed on by my assistants, it is 4 feet long.

We made 3 hauls 1. 5 minutes

2. 5 "

3. 10 " - this loaded the dredge.

Too full and crushed some of the material badly.

~~Estimated 25 fish + 300 shrimp estimated~~
64 fish preserved +

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-~~45~~⁴⁶ Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Bowditch anchorage off Bikini Island.

Drainage: _____ Date: March 30, 1946

Water: _____

Vegetation: _____

Time: ~~9:00~~ 11:00 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: surface Depth of water: 100 feet

Method of capture: 100 W light on surface & dip nets.

Collected by: Schultz and Brock

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The merine light 100 W. within a few moments attracted a myriad of Crustaceans and other organisms. They teemed around the light. Fish darted in and out, and we caught numerous specimens. In the area of dim light 50-100 feet away, larger fish lurked but never came into range of our dip nets. Sapphirina, that brilliantly glowing little animal shone now and then with great radiance. One swoop of 3 feet with my dip net collected a pink of material.

over

The small Mullid was rose colored dorsally with orange barbels; soft dorsal, anal & caudal fins pale yellow, pelvics dark wine red, pectorals pale; sides silvery, and on sides of head silvery up to the orbit.

These little goat fishes were very active jumping when the net came near them.

The largest goat fish had a pale yellow streak along the side.

The waves caused numerous bubbles which interfered with seeing the fish well.

340 fishes preserved
75 fishes discarded

415

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-47 Sta. No. _____

State or Country: Bikini Atoll

County: (Code: Romuk) City: _____

Locality: Romuriksky Island: Coral heads on ocean side.

Drainage: _____ Date: April 1, 1946

Water: _____

Vegetation: Coral heads widely scattered Time: 9 AM to 1 P.M.

Bottom: _____

Shore: _____ Current: slow

Distance from shore: 500 to 1000 feet Tide: _____

Depth of capture: to 4 feet Depth of water: _____

Method of capture: 20 lb. cubic root

Collected by: J.P. Schultz and party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The area fished was 50 feet at start widening to 300 feet at a distance of about 1000 feet. 4 men picked up fish. One with a face mask.

The reef fished on Romuriksky Island on the ocean side at low water was similar to that on outer reef of Bikini, but there were only about $\frac{1}{3}$ the number of coral heads in a narrow belt 200 to 500 feet wide near the shore for a distance of 1500 feet. We poisoned a strip thru these 50 feet at the start, and as it drifted slowly it widened to 300 feet, when it lost its effectiveness at 1000 feet. The water around these coral heads was from 2 to 5 feet deep. About 20 lb of cubic root was used. ones.

It took an hour for the poison to travel across the group of coral heads, then it dispersed seaward, losing its effectiveness.

The living coral heads were not very luxuriant more of the solid and less of branching types. The bottom was of soft sand, everywhere, between the corals, except near shore where beach rocks formed the edge of the island;

A bottle was picked up on the beach that had drifted in during the early morning as the tide was going out. It was covered with ~~goose neck~~ fish eggs and a few goose neck barnacles near the cork end. The bottle and eggs were preserved, prob. flying fish.

Color sketches of 5 fishes were made in the "Fish Notes" notebooks.

S-46-47 Tin Tag was tied to a large Tylosurus

$$\text{Index of abundance} = \frac{\text{number fish}}{\text{area in sq. yds.}} =$$

$$\frac{415}{16,650} = .025$$

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-4 8,67 & 69 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following fishes were measured, counted then wrapped for shipment.

- S-46-67 - *Diodon hystrix* - 370 mm.
- S-46-68 - grouper - 260 mm } bronze spots everywhere
- S-46-69 - grouper 230 mm } well separated.

- Holocentridae*
- 191-200-1
 - 161-170-11
 - 160-1
 - 150-111
 - 140-111 111
 - 130-11
 - 120-111
 - 110-111 1111
 - 100-111 111
 - 90-111
 - 80-111 1
 - 70-111 111 1
 - 60-111 1
 - 41-50-1

- Pomacentridae*
- 131-140-1
 - 90-111
 - 80-111 111 111 111
 - 70-111 111 111 111 111
 - 60-111 111 111 111 111 111 111 111
 - 50-111 111 111 111 111
 - 40-111 111 111
 - 30-1

- Miscellaneous
- (30)
 - Aphodes
 - (19)

over

Acanthuridae

151-160-1
120-1
110-1
100-1
80-11
40-11
30-1

Epinephelus

201-210-1
200-1
160-1
150-
140-1
130-11
120-11
110-11

Apogonidae

71-80-###1
70-1111
60-111
50-1111
40-###
30-###

Sethrinidae

171-180-1
150-11
100-1

1

70-1
40-1

Scaleless
blennies

111-120-111
110-1111
100-1111
90-###
80-111
70-###1111
60-######1111
50-######
40-###11
30-11
11-20-1

Pomphridae

(27)

Mugilidae

121-130-1

Balistes

161-170-1

Scarus

231-240-1
230-
220-1
210-1
1
170-1
160-1
150-1
140-11
130-
120-1
110-
100-1
1
70-1

Carangidae

201-210-1
191-200-1

Labridae

171-180-1
170-
160-
150-1
140-
130-
120-
110-11
100-
90-1
80-11
70-###1111
60-######11
50-###1
40-###1
30-1111

Mullidae

221-230-1
140-1
130-1
1
90-1

456 fish preserved
46 fish discarded

502

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-48, ^{67 to 69.} Sta. No. _____
State or Country: Bikini Atoll
County: Ronurikabey Is. (Ronurikabey Is.) City: _____
Locality: Lagoon side along ledge, with some crevices, near shore.
Drainage: _____ Date: April 2, 1946
Water: _____
Vegetation: Coral heads & algae
Time: 9 AM & 12:30 PM
Bottom: Coral and sand bottom
Shore: _____ Current: slow
Distance from shore: _____ Tide: low
Depth of capture: 5 feet Depth of water: _____
Method of capture: 5 feet 20 lb. cube root
Collected by: L.P. Schultz and party
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The area fished was about 50 feet wide and 600 feet long. 4 men picked up fish for about 3 1/2 hours.

The fishing consisted of using about 20 lb. of cube root along a poorly creviced ledge for about 600 feet where it was effective. At low tide the water was 2 to 6 feet deep along the lagoon side. On top of the ledge were some small tidal pools left when the water receded. The bottom beyond the rock ledge was sand, algae and coral growths of low types, but no extensive area of moving sand. The bottom was pitted with living corals offering a fair habitat for fish. The water was somewhat clouded making

Observations difficult even with a facemask.
 Halimidia the algal was abundant on
 bottom corals and on the rock ledge.

Many large parrot fish were seen but
 left when the cube came in contact
 with them. A few were killed however and
 recovered.

S-46-48 was tied to a large ~~brown blotched~~
~~gto~~ snapper or ~~spotted~~

The following fishes were discarded in the field

Holocentrus
 261-270 - 11
 251-260 -
 241-250 - 1
 231-240 -
 121-230 - 1
 111-220
 101-210
~~91-100~~
 90
 161-170 - 1
 160 - 1
 150 - 1
 140
 130 - 1
 120
 110 - 111
 91-100 - 1111
 Myripristis
 151-160 - 1
 150 - 11
 140 -
 130 - 1
 120 - 1

Mullidae
 170-1
 160 -
 141-150 - 1
 Epinephelus
 131-140 - 11
 130 - 11
 121 120 - 1111
 1
 61-70 - 1
 Acanthuridae
 171-180 - 11
 170 -
 160 - 11
 150 - 1
 140 - 1
 130 - 11
 120 -
 110 - 1
 91-100 - 1

Pomacentridae
 81-90 - 1
 80
 61-70 - 111

$$\text{Index of Abundance} = \frac{\text{No fish}}{\text{Area in sq. yds}} = \frac{502}{3,400} = .148$$

12 x 200

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-47 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 1, 1946

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Following fishes were counted and measured when packed for shipment

Spard - S-46-48 - 310mm

Mullidae	Mugilidae	Scarus
241-250-1	181-190-1	221-230-1
191-200-1	180-1	220
190-1	170-III	210
180	160-1	200-1
170	150-	170-11
160	140-1	160-1
150-1	70-1	150-1
140-1	50-III	90-11
121-130-1	40-	80-11
Lethrinid	Balistes	70
211-220-1	121-130-11	60-1
Siganus		50-1
251-260-1		40-1

One

Continued

Chaetodontidae

151-160 - II
150 - I
101-110 - I

Carangidae

191-200 - I
181-190 - I

Labridae

110 - I
101-100 - I
90 -
80 - III
70 - IIII
60 - I
50 - II
40 - III
30 - IIII
20 - I

Apozonidae

61-70 - IIII 1
60 - IIII IIII IIII IIII 1
50 - III III III III
40 - III 1
30 - II

Pomacentridae

71-80 - IIII
70 - III IIII
60 - III III 1
50 - III III III II
40 - III III III
30 - III II
20 - I

Acanthuridae

131-140 - I
130 - I
120 - II
110 - III
100 - II
90 - III
80 - III
70 - I
60 - I
50 -
40 -
30 - I

Miscellaneous

(44)

Apoles

(36)

Holocentridae

161-170 - I
130 - I
120
110 - I
100 - I
90 - IIII
80 - I
70 - III
60 - I
41-50 - I

Epinephelus

131-140 - II
130 - II
120 - II
110 - II
100 - IIII
90 - II
80 - I
70 - III
60 - III 1
50 -
40 - II

281 preserved
31 discarded

312

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-49 Sta. No. _____
State or Country: Bikini Atoll
County: Namu Island City: _____
Locality: Lagoon side in shallow tidal pools about 50 by 100 feet.
Drainage: _____ Date: April 3, 1946
Water: _____
Vegetation: few shallow corals
Time: 12:00 & 1:30 P.M.
Bottom: Rocks and sand
Shore: very near shore Current: none
Distance from shore: _____ Tide: _____
Depth of capture: 1 1/2 feet to surface Depth of water: to 1 1/2 feet
Method of capture: 5 lb. tubi net
Collected by: L. P. Schutty and party
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This was a group of shallow water tidal pools not over 1 1/2 feet deep containing a few low coral heads and coral rocks at about 2 feet above tidal level. The area poisoned was about 50 by 100 feet. Because of its shallow nature and in the lee of the island it was possible to pick up nearly all of the fishes killed. 2 men picked up fishes from 12:30 & 1:30 P.M.

over.

The following fishes were discarded.

Epinephelus

131-140-1
 130-1
 120-1
 110-11
 100-
 90-
 80-1
 70-11
 60-
 41-50-1

Pomacentrids

71-80-1111
 70-11
 60-1111
 50-1
 40-11
 30-1

Siganus

151-160-1
 171-180-1

Mullidae

121-130-111

Holocentrus

101-110-1
 91-100-
 90-1
 80-1

$$\text{Index of abundance} = \frac{\text{total \# fish}}{\text{area in sq. yds.}} =$$

$$\frac{312}{561} = .556$$

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-49 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 3, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

S-46-49 tied on *Siganus* - 160 mm
Following counted, measured when wrapped

Mugilidae
181-190-III
180-1

Kenurhamphidae
(150)

Miscellaneous (21)

Apodes - (25)

Labridae
101-110-II
100-II
90-III
80-II
70-III
60-I
50-III
40-II
21-30-III
~~11-20~~

Chaetodon
101-110-1

Scarus
121-130-1

The tips of the dorsal spines of the *Pseudochromids* are bright orange red.

over

Epinephelus

171-180-1
111-120-1
101-110-1
100-
90-1
~~80~~-11
70--
60-1
50--
40-11
30-11

Pomacentridae

81-90-
80-111
70-1
60-1
50-111
40-111

Scaleless blennies

110-120-11
110-1
100-111
90-111
86-111
70-111
60-1
50-1

Holocentridae

81-90-1
80-1
70-1

Apoogonidae

61-70-1
60-11
50-111
40-1
30-1
20-1

228 fish preserved
185 discarded

413

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-50,70-71 Sta. No. _____

State or Country: Bikini Atoll

County: Namu Is. City: _____

Locality: Lagoon ~~off~~ off Namu Is. ~~in reef~~

Drainage: _____ Date: April 3, 1946

Water: _____

Vegetation: _____

Time: 10:30 & 12:30 PM

Bottom: Corals, algae

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: 6 feet Depth of water: 5 feet

Method of capture: 20 lb. cube net

Collected by: L. P. Schultz and party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The reef poisoned was much like that on the ocean side in the surf yet of a smaller scale. The surges in the lagoon are lower, only a foot or two high but this is sufficient to give an abundant coral growth and much algae. The surge of the waves brought the poison over the reef ^{edges} and ~~over~~ upon the more flat higher portions of the reef where there were pools or depressions some 4 or 5 feet deep.

4 men picked up the fish from 10:30 & 12:30 PM. The area fished was about 150 by 200 feet. over.

The depth of water beyond the reef in the lagoon was 10 to 15 feet deep but we did not get fish from the bottom here.

The following fishes were discarded.

Siganus
 199-200-11
 190
 180-###
 170-###
 160-1
 141-150-111

Acanthurus
 triostegus
 101-110-1
 100-###
 90-###1
 80-11

Mullidae
 211-220-1
 121-130-1
 Epinephelus
 151-160-1

Pomacentridae

81-90-###
 80-###
 70-###
 60-###1
 50-###1
 40-###
 30-1

Acanthuridae

121-130-1
 120-1
 110-
 100-11
 90-11
 80-11

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-50, 70 & 71. Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 13, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Following fish measured, counted when packed.

S-46-70 - Caranx 340 mm. / S-46-50 - group - 360 mm
S-46-71 " 330 mm

Epinephelus
161-170 - 1
" 130 - 1
120 - 1
110 - 1
100 - 1
81-90 1

Pomacentridae
81-90 - 1
80 - ~~###~~ ~~###~~ ~~###~~ ~~###~~
70 - ~~###~~ ~~###~~ 1
60 - ~~###~~
50 -
40 - ~~###~~
21-30 - 11

Mugilidae
211-220 - 1

Mullidae
131-140 - 1

Siganus
181-190 - 1

Ethnidae
151-160 - 1

Balistes
171-180 - 11
150 - 1
140 - 1

Scarus
231-240 - 1
150 - 1
140 -
130 - 1
120 - 1
110 - 11
100 - 11
81-90 - 1

Over

Acanthuridae

201-210-1
 200-1
 190-
 180-
 170-1
 160-1
 150-
 140-1
 130-### 11
 120-####
 110-### 1
 100-###
 90-### 1111
 80-1111
 70-1

Labridae

161-170-
 160-
 150-1
 140-1
 130-1
 120-11
 110-####
 100-### 1
 90-### 1111
 80-### 1
 70-### 111
 60-11
 50-111
 40-11
 30-
 20-1

Holocentridae

151-160-1
 150-1
 140-
 130-
 120-
 110-1
 100-111
 90-1
 80-1
 70-1111

Apogetidae

71-80-111
 61-70-1111
 1
 21-30-1

Scalpers
Blennies

111-120-1
 61-70-1

Miscellaneous (30)

Apodes (24)

$$\text{Index of abundance} = \frac{\text{Total no. fish}}{\text{area in sq. yds.}}$$

$$\frac{413}{50 \times 67} = \frac{413}{3350} = .123$$

133 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-51 Sta. No. _____
State or Country: Bikini Atoll
County: Namur Is. City: _____
Locality: Outer edge of reef on northeast corner of Namur Is.
Drainage: _____ Date: April 4, 1946
Water: _____
Vegetation: Corals, Algae
Time: 11:00 - 1 PM
Bottom: _____
Shore: _____ Current: _____
Distance from shore: 1/4 mile Tide: _____
Depth of capture: surface & 1 ft Depth of water: surf & breakers
Method of capture: 20 lb. cube net
Collected by: J. P. Schultz & party
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The outer reef at ocean was made up of channels through which the breakers surged, up and down among the luxuriant growths of corals and algae. Photographs were taken - movies. The area fished consisted of 2 channels, 50 feet by 50 feet. Within 5 minutes all of the poison had washed out and disappeared. The surge of the surf brought a few of the fish upon the solid part of the reef where we picked them up. The breakers rose 6 to 8 feet and at times to 10 feet. The reef approaching the outer edge was level, with shallow

depressions. Large sea urchins and cat's eye
shells were abundant. About the only
fish effected were blennies & holocentrids.

4 men picked up the fishes.

The black Pseudochromid was
yellowish anteriorly, blackish
posteriorly, pelvics and pectorals
yellowish, body behind and below
dark pectorals purplish grading into
the blackish posteriorly, with belly
a pale purplish tinge; ~~anteriorly~~
the upper lateral line greenish yellow
for most of its length. - length 37 mm.

$$\text{Index of abundance} = \frac{\text{Total}^{\#} \text{ fish}}{\text{area in sq. yds.}}$$

$$\frac{133}{289} = \cancel{.513} .460$$

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-51 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 7, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

S-46-51 - tied to *Eulamia melanopterus* - 450 mm
from tip of snout to middle ear edge of caudal fin.

Following measured & counted when wrapped.

<p><u>Holocentridae</u></p> <p>181-190 - 1 180 - 11 170 - 111 160 - 11 150 - 140 - 1 130 - 120 - 110 - 1 100 - 1 1</p>	<p><u>Pomacentridae</u></p> <p>151-160 - 1 51-60 - 111 41-50 - 111 31-40 - 1111</p> <hr/> <p><u>Scaleless blennies</u></p> <p>71-80 - 11 70 - 1111 60 - 1111 50 - 1111 1111 1111 1111 1111 40 - 1111 1111 1111 1111 1111 30 - 1111 1111 1111 11</p>	<p><u>Scarus</u></p> <p>291-300 - 1 251-260 - 1</p> <hr/> <p><u>Labridae</u></p> <p>91-100 - 1 60 - 111 50 - 11</p> <hr/> <p><u>Miscellaneous</u></p> <p>(14)</p>
<p>61-70 - 1</p>	<p><u>Acanthuridae</u></p> <p>131-140 - 1 130 - 1 80 - 1 70 - 11</p>	<p><u>Apodes</u> (2)</p>

440 fish preserved
183 fish discarded

623

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-52, 88-89, 92 Sta. No. _____
State or Country: Bikini Atoll
County: Boboronyurus Is. - New Is. City: _____
Locality: Reef next to Boboro Channel; area
poisoned about 100 x 150 feet
Drainage: _____ Date: April 6, 1946
Water: _____
Vegetation: Corals, algae,
Time: 2 to 4:30 P.M.
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: to 5 or 6 ft Depth of water: _____
Method of capture: 25 lb. tubé
Collected by: J. P. Schultz and Vernon Brock
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

~~Fish preserved in tanks 12 in field - changed later.~~

S-46-52 Tin tag was tied to a brown spotted grouper. - 300 mm.

This reef was full of channels, pools 2 to 5 feet deep with an abundance of coral growths and algae. We both used a face mask and worked for about 2 hours picking up the fishes, which were on the bottom of the pools. The bottoms were sandy in these pools.

S-46-88 - grouper 320mm

S-46-89 " 270 "

S-46-92 trumpet fish

over

There were discarded: ² 150 acanthurids (black)
30 Pomacentrids
25 parrotfishes
that were not measured.

The following were measured
Scarus - green one

271-280-1
270-1
260-1
250-11
240
1
200-1
1
130-1

Naso lituratus - 222-1

$$\text{Index of abundance} = \frac{\text{total no fish}}{\text{Area in sq yds.}}$$

$$= \frac{623}{\frac{222}{1650}} = \frac{282}{1650} \cdot 377$$

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-52 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 6, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Following fish measured and counted when wrapped & packed.

Scarus

- ~~251-260~~
- 201-210-11
- 200-11
- 190-
- 180-1
- 170-1
- 160-11
- 150-1
- 140-111
- 130-111111
- 120-111
- 110-1111111111
- 100-1111
- 90-1111
- 80-11

Mugilidae

- 219-220-1
- 210-1
- 200-111
- 190-1
- 180-11
- ~~170-~~
- 140-1
- 130-11
- 120-111
- 110-1

Acanthuridae

- 201-210-111
- 160-1
- 120-1
- 110-111
- 100-111111
- 90-11111111
- 80-1111111111
- 70-11111111
- 60-1
- 41-50-1
- 40

Miscellaneous (150)

Apodes (49)

Chaetodon

161-170-1
140-1
110-1
100-1
90-1
80-III
70-1

Mullidae

131-140-1
130-1
110-II
100-II

Balistes

171-180-1
140-1
120-1
70-1

Pomacentridae

71-80-III
61-70-III
60-III
50-1
30
20-II

Scalops
flennies

90-1
80-1
50-1
40-1

Epinephelus

141-150-1
140-~~1~~
130-1
120-II
110-III
100-II
90-1
80
70
60-II
50-1

Labridae

201-210-1
190-1
150-1
140-1
130-1
120-
110-III
100-III III
90-III 1
80-III III II
70-III III
60-III
50-III
40-III
30-

Apoogonidae

61-70-1
50-II
40-1

182 preserved.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-53, 57 to 60; Sta. No. _____
State or Country: Bikini Atoll
County: Boboro - Channel City: _____
Locality: Western end of atoll

Drainage: _____ Date: April 6, 7, 1946

Water: _____

Vegetation: _____

Bottom: _____ Time: 8:30 & 10:30 PM
on two nights.

Shore: _____ Current: moderate

Distance from shore: 1/3 mile Tide: outgoing

Depth of capture: surface Depth of water: _____

Method of capture: Marine light off stern of VMS 413

Collected by: L. P. Schuth and Vernon Brock

Preservative: dipnet Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

We were aided by the crew of VMS 413 in making these collections.

S-57 & 60 - flying fish

This collection took about 3 1/2 hours on the two nights to pick up the fish with 1 dipnet for 2 hours and 2 dipnets for 1 1/2 hours.

Light shorted, burned wires ~~into~~ off and whole of apparatus dropped into the sea, down and down

8 fish preserved,
14 discarded

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-54 ⁶ ~~5~~ Sta. No. _____

State or Country: Bikini Atoll

County: Bokoro Channel at City: _____

Locality: Western end of atoll.

Drainage: _____ Date: April 6, 1946

Water: _____

Vegetation: _____

Time: 3:30 to 6 PM.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Hook and line with tuna fish pieces as bait.

Collected by: Schultz, Brock and crew of YMS 413

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Following grey sharks were captured.

1	121 cm	♀	45 lb.	no embryos
2	110	♀	27	" "
3	118	♀	31	" "
4	91	♀	17	" "
5	123	♀	55	" "
6	130	♀	57	one embryo
7	90	♀	15	no "
8	109	♀	31	" "
9	97	♀	23	" "
10	122	♀	49	two embryos
11	109	♀	35	no "
12	98	♀	23	" "
13	81	♀	11	" "
14	77	♀	10	" "
15	82	♀	13	two embryos
16	119	♀	54	two embryos

Two of above smaller ones preserved and carry tin tags S-46-54 and 55. Embryos preserved and carry tag S-46-61 tied around all 5.

This grey shark when swimming had a narrow blackish band on posterior edge of upper lobe of caudal fin. Back and upper

sides grayish-black, fins generally grayish above becoming quite blackish distally but not "black tipped" like the shark E. melanopterus.

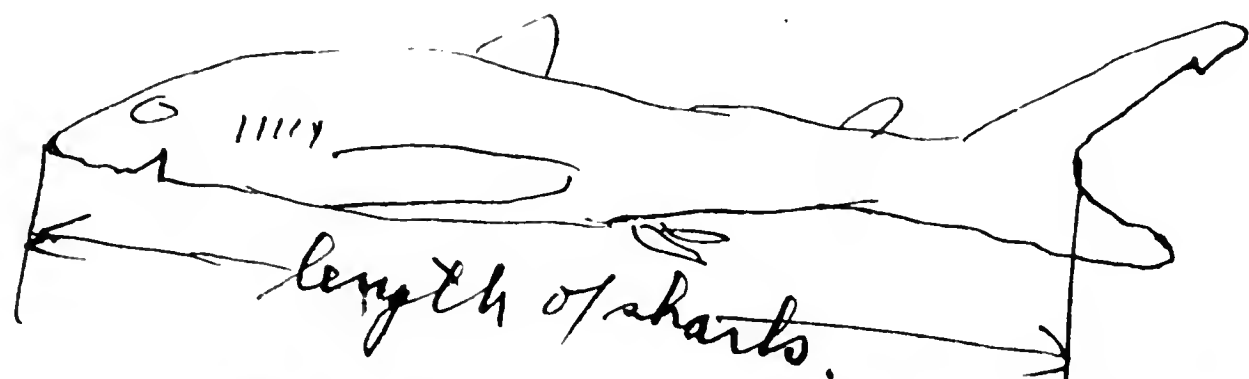
All of above discarded except the two smaller ones preserved.

The white tipped shark ~~was~~ measured 179 cm but was not weighed because we had no scales of that capacity. I estimate the weight to be 275 lb. Its stomach was a 2 fat long bone & joint of some roast tubers overboard by a ship in the lagoons. Undoubtedly from 21 miles away.

This ^{with} white tipped fins ~~on all fins~~ ~~was~~ grayish above & white below, with under sides of paired fins nearly white, upper sides of these fins grayish, with tips of fins including median fins, white.

Some Kodachrome pictures were taken.

All measurements were made from tip of snout to posterior edge of concavity of caudal fin thus:



Jaws of Whitetip shark - 5-46 - 56

6 fish

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-46-62 to 66 Sta. No. _____

State or Country: Bikini Atoll

County: (Boku Is.) City: _____

Locality: Reef of Bokoetokutoku Is. next to
Boko Channel

Drainage: _____ Date: April 7, 1946

Water: _____

Vegetation: _____

Time: P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: edge of outer reef Tide: _____

Depth of capture: _____ Depth of water: 8 feet

Method of capture: Shear

Collected by: Vernon Brock

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- S-46-62 to 64 - parrot fish -
- S-46-65 - Monacanthid
- S-46-66 - needle fish Tylosurus

above fishes photographed - Kodachrome.

18 fish preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

123
102, 103, 117, 118,

Acc. No. _____ Tag No. S-46-72 to 87 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll City: _____

Locality: Lagoon and general region of channels to leeward

Drainage: _____ Date: April 1 - 24

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Trolling and hook line spearing

Collected by: U.S.S. Bowditch & Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This collection contains fishes taken by various members of crew, officers and scientists on U.S.S. Bowditch.

- S-46-72 - *Coryphaena*
- S-46-73 - *Clagata bipinnulatus*
- S-46-74 - *Coryphaena*
- 75 - Tuna
- 76 - *Euthynnus yarto*
- 77 - Tuna
- 78 - *Eulamia melanoptera*
- 79 - Tuna
- 80 - Tuna
- 81 - Caranx
- 82 - Tuna
- 83 - Red colored parrot fish
- 84 - " " " "
- 85 - Puffer
- 86 - Scombroid
- 87 - Caranx

over

S-46-102 - Scorbids

S-46-103 - Trunk fish spread log

V Brock.

S-46-117 - Rainbow sunnys,

S-46-119 - Echeveris

-S-46-123 - Puffer - May 7

2 fish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-90 & 91 Sta. No. _____

State or Country: _____

County: Bikini Atoll City: _____

Locality: Rubozi Channel (Ruzi)

Drainage: _____ Date: April 6, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: near surface Depth of water: _____

Method of capture: Trolling

Collected by: Vernon Brock & ~~Harry~~ L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

S-46-90 - Tuna, caught by trolling
S-46-91 - Emmelichthys regurgitated
by large dog-toothed tuna.

S-46-90 has the two lateral lines and
is strictly not a tuna.

The caudal fin of the # 91 was
orange yellow in color; back and
upper sides bluish.

about 5 fish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-92 Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: off gangway of U.S.S. Bowditch

Drainage: _____ Date: April 12, 1946

Water: _____

Vegetation: _____

Time: 10 & 11 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: Surface Depth of water: _____

Method of capture: Light at night, 2 dip nets

Collected by: J. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The sea was too rough to catch any fish at night & speaks of so I finally quit after an hour of trial - too many bubbles formed from the waves - I could not see into the water.

This trial should not be used in any calculation of abundance

1 fish
4 lots invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-93 Sta. No. 3,100,101
State or Country: Bikini Atoll, Marshall Islands.
County: Western half of City: _____
Locality: Bikini Lagoon

Drainage: _____ Date: April 13, 1946

Water: _____

Vegetation: _____

Time: 9A & 3 PM.

Bottom: Coral & algae, some algal sand.

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 25 & 30 fathoms Depth of water: same

Method of capture: 4ft & 1 1/2ft dredge

Collected by: AGS 13 / Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

5 Dredge hauls were made - nos. I and III by 4ft dredge and II, IV, & V with the 18" dredge. The 4ft dredge was ruined on the # III haul when it folded up into a U and the shackle broke - the cable and blocks flying, and the cable hitting my shoulder, knocking me nearly down. Just missed my neck which would have broken, I received such a wallof.

Each dredge haul was 5 & 8 minutes. One fish only was taken, a goby.

The two little crabs of peculiar shape were bright green, exactly a

perfect mimicry of the green algae.
Most remarkably colored and shaped
of any crabs that I have ever seen.

Lt. Mann caught two
fishes - Euthynnus? by trolling
today - they bear the following
Tag nos. S-46-100
S-46-101

One other fish was caught by
a crew member it bears the
following tag no. S-46-

108 fish preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-94 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll City: _____

Locality: Reef at Ocean side in surf opposite Bobonfusaku Island

Drainage: _____ Date: April 15, 1946

Water: Area poisoned 75 by 75 feet

Vegetation: _____

Time: 9 to 10:30 AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: Cube net about 25 x 30 lb.

Collected by: L. P. Schultz, V. Brock & party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Reef at Ocean edge - channels,
Corals, coralline algae in surf.

The following fishes were measured, counted
when wrapped for packing.

Epinephelus	Apogeton	Holocentrus
190-1	40-1	180-1
130-1	30-1	170-III
90-1		120-1
40-1	Blenius	80-11
	Scaleless	70-111
	100-1	60-1
Labridae	90-11	50-1
90-1	80-11	
80-1	70-III 1	
70-11	60-III IIII	
60-III	50-III III 1	
50-III	40-III III	
	30-III	
	20-1	

are

Miscellaneous - (26)

eel - 1

acanthuridae

100 - 1

50 - 1

Pomacentridae

60 - 1

50 - 1

$$\text{Index of abundance} = \frac{\text{total fish}}{\text{sq yards}} = \frac{108}{625}$$

$$= .173$$

115 fishes preserved
also invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-95 Sta. No. _____

State or Country: _____

County: Bikini Atoll ^{Bekon} City: _____

Locality: Bobonfusalon Island on ocean side.

Drainage: Area poisoned about Date: April 15, 1946

Water: 100 x 100 feet.

Vegetation: _____

Time: 11 to 12:30

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: to 1 ft Depth of water: _____

Method of capture: cube net

Collected by: L. P. Schultz & party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

shallow tidal pools, rather high up on reef, enclosed, no out let, a few corals.

The following fishes were measured and counted when wrapped for shipment.

<u>Spinnephelus</u>	
170-11	60-1
160-1	50-
150-11	40-###
140-	###
130-	30-1
110-11	
90-1	
80-11	
70-	

<u>scaleless</u>	
<u>blennies</u>	
100-1	
90-1	
70-1	
60-1	
50-1	
40-11	
30-###	###
20-###	11

over

Miscellaneous 13

Apogon 60-1

Chaetodon 30-11

Acanthuridae

50 - ~~77~~ 111

40 - 11

30 - 1

Palistes 140-11

Mullidae

100 - 1

90 - ~~77~~ 1

Labridae

120 - 1

70 - 11

60 - ~~77~~ 1

50 - 11

Pomacentridae

60 - 111

50 - 111

30 - 1

20 - 1

$$\text{Index of abundance} = \frac{\text{total fish}}{\text{area sq. yds}} = \frac{115}{1089} = .106$$

334 fishes preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-96 Sta. No. 104, 105, 106

State or Country: Marshall Islands.

County: Bikini Atoll City: _____

Locality: Airukiraru Island - Reef on the Ocean side at noon, in Surf

Drainage: _____ Date: April 16, 1946

Water: _____

Vegetation: Area poisoned 75 by 100 feet

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: 2 lb. tube root

Collected by: L. P. Schultz and Party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Reef fished with numerous coral and algal growths but of low type not over 1 or 2 feet high. 3 or four pools 2 to 3 feet deep.

- S-46-96 - Serranid
- S-46-104 - spiny lobster
- S-46-105 - land crab
- S-46-106 - trumpet fish

over.

The following fishes were discarded in the field - about 75 pomacentrids not picked up -

about 75 acanthurids not picked up - Both the usual blackcoloured ones.

The blenny with upper edge of caudal fin orange to yellow has bright crimson spots on cheeks and tips of dorsal spines, red, lower rays of pectorals red at tips.

C. variolosus

The spotted blenny has a crimson eye (iris) and the upper edge of caudal fin orange, both of above blennies very common.

C. brevis

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-96 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: April 16, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following fishes were measured and counted when wrapped.

<u>Serranidae</u>	<u>Holocentrus</u>	<u>Siganus</u>
330 - 1	190 - 1	200 - III
170 - 1	186 - III	190 - III
130 - IIII	170 - II	180 - III
120 - III 1	90 - 1	
100 - III	70 - 1	<u>Chaetodon</u>
80 - II		100 - 1
70 - IIII	<u>Scarus</u>	
50 - 1	150 - 1	<u>Mullidae</u>
40 - II	120 - IIII	140 - 1
		<u>Afogon</u>
		70 - 1
		40 - 1
		20 - 1

Labridae

110 - 11
100 - 1
90
80 - 111
70 - 111 11
60 - 1111
50 - 111 111
40 - 11

Pomacentridae

60 - 11
50 - 111
40 - 111
30 - 11

Scalibers

blennies

110 - 11
100
90 - 1111
80 - 111 1111
70 - 111 111 111
60 - 111 111 111 111 111
50 - 111 111 111 111 111 111 111
40 - 111 111
30 - 111 111 1111
20 - 11

Acanthuridae

260 - 1
230 - 1
220 - 1
200 - 1
170 - 1
130 - 1111
120 - 1
110 - 1111
100 - 111 111 1
90 - 111 111 111 111 11
80 - 111
70 - 111
60 - 111 1111
50 - 111
40 - 11
30 - 1

eels - (9)

Miscellaneous

(56)

$$\text{Index of abundance} = \frac{334}{25 \times 33 \text{ sq yds.}} = \frac{334}{825} = .405$$

285 fishes preserved
168 fishes discarded

453

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-97 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll City: _____

Locality: Airukiraru Is. reef on lagoon side - area fishes 200 x 150 feet

Drainage: _____ Date: April 17, 1946

Water: _____

Vegetation: Scattered coral heads - sandy bottom Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: To 6 feet Depth of water: _____

Method of capture: Cube net 25 & 30 lb.

Collected by: J. P. Schultz & Party

Preservative: _____ Temp: _____ Air: _____

List of species of kinds, with tag numbers if drawn or discussed:

This reef was on sandy bottom with large but scattered coral heads. nearer shore the reef was nearly solid from there came the large electricids with the black streak across cheek -

Kodachrome pictures taken

Following fishes discarded in field

Pomacentridae - (98)

Acanthuridae - (43)

Epinephelus - (27)

The following fish were measured and counted when wrapped.

Pomacentridae 90-1 80 - IIII IIII IIII IIII 70 - IIII IIII IIII IIII IIII IIII 60 - IIII III 50 - IIII IIII 40 - III 30 - I 20 - II	acanthuridae 140-1 130-1 120-1 1 90 - III 80 - IIII 40 - 1	Serranidae 160 - 150 - II 140 - 1 130 - 1 90 - III 80 - IIII 70 - III 60 - III	
Holocentrus 110-1 100 - IIII 90 - IIII 80 - 70 - III 60 - 1	Labridae 200 - 1 130 - 1 110 - II 100 - IIII 90 - III 80 - IIII IIII 70 - IIII II 60 - IIII III 50 - IIII II 40 - 1	eels (21)	Scarus 100 - 1 50 - 1
Mullidae 180 - 1 160 - 1 150 - II 140 - II 130 - IIII 110 - II 100 - II 90 - 1	Apogon 80 - 1 70 - IIII II 60 - IIII II 50 - IIII 40 - 1 30 - IIII IIII	Scaleless blennies 80 - II 70 - IIII 60 - 1	Miscellaneous (68)

Index of abundance = $\frac{450}{3300} = .136$

273 fishes preserved
134 discarded

407

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-98¹⁰⁷ Sta. No. _____
State or Country: Marshall Islands
County: Bikini Atoll City: _____
Locality: Chicere Island - reef on
Ocean side - not in surf
Drainage: _____ Date: April 18, 1946
Water: _____
Vegetation: Abundant growth of corals with
sandy bottom. Time: _____
Bottom: Area fished 100 x 200 feet but
Shore: Area searched was only about ~~100 x 150 feet~~
Distance from shore: not over 75 feet x 200 Tide: low
Depth of capture: to 6 feet Depth of water: _____
Method of capture: 50 lb cube net
Collected by: L. P. Schultz & party
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef had abundant coral growths from 2 to 4 feet high of a rather solid nature with channels and channel-pools between. The current was moderate causing the cube net to drift around the end of the island instead of outward to edge of reef.

Following fishes discarded in field:

Acanthuridae - (82)

Parrot fish (28)

Siganus (1)

Pomacentridae - (15)

Yellow streaked goat fish (8)

S-46-107 - Serranid - 330 mm.

Following fishes measured and counted when packed.

Serranidae - 120 - III 100 - II	Labridae 180 - 1 170 - 160 - 150 - II 140 - I 130 - II 120 - 110 - III 100 - III II 90 - III III III 80 - III I 70 - III I 60 - II 50 - III 40 - II 30 - III I 20 - I	Pomacentridae 90 - 1 80 - III III 70 - III 60 - III 50 - II 40 - III
Acanthuridae 250 - 1 200 - 1 140 - 1 136 120 - III 110 - III 100 - III III 90 - III II 77-80 - II		Scarus 180 - 1 170 - 1 150 - 1 130 - III 120 - II 110 - II 100 - II
Mullidae 170 - II 160 - 1 150 - 1		
Holocentridae 100 - 1 90 - 1 80 - 1 70 - 1 60 - II	Chaetodontidae 140 - 1 100 - II 90 - II 80 - II 70 - III 60 - III 50 - II	Eels (56) Arogon 70 - 1 Scaleless blennies 70 - II 60 - 1

Miscellaneous

(55)

$$\text{Index of abundance} = \frac{407}{\cancel{178}} = \cancel{2.287} \cdot 247$$

33 * 50 = 1650

The cloud of poison drifted close in to shore around end of island so that the area covered and searched was only about 100 by 150 feet about same size as Box.

250 fishes preserved

50

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-99 Sta. No. _____

State or Country: Bikini Atoll

County: Cheruti Island City: _____

Locality: Isolated tide pools high up on reef - area about 30 by 60 feet.

Drainage: _____ Date: April 18, 1946

Water: _____

Vegetation: solid rock with a few small holes here and there Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 1 ft Depth of water: _____

Method of capture: Cube root 4 lb.

Collected by: J. P. Schultz & Party

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The following were measured, counted when wrapped,
Scaleless Hemmies
70 - 11
60 - 1111
50 - III III 11
40 - III III III III 11
30 - III III III III III III III III III III III III
20 - III III III III III III III III III III III III I

Murblidae
50 - 111
40 - III III III 1111
30 - III III III III 1111
20 - III 111

Index abund. = $\frac{250}{200} = 1.25$

2 fishes preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. *S-46-108* Sta. No. _____

State or Country: *Marshall Is.*

County: *Bikini Atoll* City: _____

Locality: *Lagoon at north end, one mile south
off west end of Bikini Island*

Drainage: _____ Date: *April 23, 1946*

Water: _____

Vegetation: _____

Time: _____

Bottom: *12 fathoms*

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: *12 fathoms* Depth of water: *same*

Method of capture: *18" dredge*

Collected by: *Dr. Morrison*

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Two small Pomacentrids.

Crabs only
1 hermit

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-109 Sta. No. _____
State or Country: Bikini Atoll, Marshall Is.
County: Lagoon City: _____
Locality: Picked out of corals brought up
from bottom of lagoon.
Drainage: _____ Date: April 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Dredge
Collected by: Dr. K. Emory
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed:

Small crabs - about 6 + 1 hermit crab

few crabs only

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-110 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Reef at Aery Island

Drainage: _____ Date: April 17, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Picked up out of algae

Collected by: Dr. W. R. Taylor

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

These crabs picked out of algae
collected by Dr. Taylor

367 fishes preserved.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-111 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Anchorage of U. S. S. Bawditch

in northern end of lagoon.

Drainage: _____ Date: April 23, 1946

Water: _____

Vegetation: _____

Time: 9:15 to 10:45 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Marine light at night - 2 dip nets

Collected by: J. P. Schultz and J. P. E. Morrison

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This collection contains a large number of crustaceans, many larval & other fishes - totaling 1 qt.

576 fishes preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-112 Sta. No. _____
State or Country: Marshall Islands
County: Bikini Atoll City: _____
Locality: anchorage of Bowditch, east end
of lagoon
Drainage: _____ Date: April 24, 1946
Water: _____
Vegetation: _____ Time: 10:00 PM
~~7:30~~ to 1 AM
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: light at night - with 2 dip nets
Collected by: L. P. Schultz and assistant
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The fish and crustaceans have been separated so there is no need to save any that night to the fish. Anple were collected otherwise. Squid are with fish though.

~~360~~ fishes preserved
350

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-113 Sta. No. _____

State or Country: Rongerik Atoll

County: Bock Island, City: _____

Locality: Ocean reef, tidal pool not fully isolated but high up near shore with scattered coral

Drainage: roads, Date: April 24, 1946

Water: _____

Vegetation: Area fished 50 x 200 feet

Bottom: coral fragments & solid rocks. Time: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: to 10 ft. Depth of water: _____

Method of capture: 7 lb. cube

Collected by: V. Brock & J. Marr

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This reef, Mr. Brock says consisted of a few tidal pools with low corals, behind a ledge of beach rock. The tide was not very low.

The following fishes were measured, and counted when wrapped for packing.

Labridae	Blennidae scaleless	Acanthuridae
91-100-1	130-1	111-120-1
90-11	120-1 (45)	110-1
80-1111	110-11	100-1111
70-11	100-111	90-1111111
60-1111	90-11111	80-1111
50-11	80-11	70
40-111111	70-1111	60-11
30-11111	60-1111	50-11
11-20-11	50-111	
	40-11	
	30-1111	

over

Apozonidae

91-100-### 1
 90-###
 80-###
 70-11
 60-11 (31)
 50-1
 40-###
 30-###
 20-1

~~Holocentrus~~
 Holocentrus

111-120-11
 110-
 100-11
 90-11 (13)
 80-1
 70-111
 60-1
 50-11

eels

(41)

Miscellaneous

(25)

Scarus

191-200-1
 180-1
 170-11 (8)
 120-1
 100-11
 90-1

Mullidae

121-130-111
 120-111
 110
 100-1 (7)

Serranidae

261-270-1
 190-1
 140-1
 130-111
 120-###
 110-11
 100-1
 90-### 1
 80-### 11
 70-1
 60-1
 50-111

Chaetodon

131-140-1 (2)
 21-30-1

Pomacentridae

61-70-###
 60-111
 50-11
 40- (15)
 30-###

40-#####
 30-111 (96)

The eels with the pale edge & fins posteriorly ~~were~~ were yellowish; others had this edge greenish.

$$I = \frac{350}{17 + 33} = \frac{350}{561} = .623$$

221 fishes

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-114 Sta. No. _____

State or Country: Bikini Atoll

County: Lagoon at

Locality: anchorage of Bowditch

Drainage: _____ Date: April 25, 1946

Water: _____

Vegetation: _____

Time: 10:30 - 11:30 PM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Marine light, 2 dip nets for 3/4 hr.

Collected by: L. P. Schultz then 1 dip net for 1/4 hr.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The water was rough & night and fewer fishes appeared.

Two serranullets were discarded that were 5 inches long and of same species as that size caught last night. They were used for bait trying to catch large fish lurking in moderate numbers in dim-light some 20 to 50 feet away from the light.

38 fishes preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-115 Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Four miles south of western end of Bikini Island.

Drainage: _____ Date: April 24, 25, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 28 fathoms Depth of water: _____

Method of capture: Dredge 18"

Collected by: Morrison and Ladd

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

37 ~~Por~~ Poronids
1 file fish

It is probable these were caught when dredge was on way to surface.

161 preserved.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-116 Sta. No. _____
State or Country: Bikini Atoll
County: Bowditch Anchorage City: _____
Locality: last end of lagoon, about 1 mile
west off northwestern end of
Drainage: Bikini Island Date: April 26, 1946
Water: _____
Vegetation: _____
Time: 9:30 - 10:30
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Marine light at night
Collected by: L. P. Schultz & assistant
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

The surface was rougher & night
and this cuts down on the number
of fishes that one can see and
collect.

87 fishes preserved.

$\frac{5}{92}$

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-~~118~~¹¹⁹ Sta. No. _____

State or Country: Bikini Atoll

County: Bikini Lagoon off City: _____

Locality: western end of Jalana (Bikini)

Drainage: _____ Date: April 29, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Bbb Davis rot

Collected by: Frank Cali

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Thread fin caught and a few
Stromateus

Two or 3 invertebrates

214 fishes preserved
112 " discarded
326

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-120 Sta. No. _____

State or Country: Marshall Islands

County: Bikini Atoll; 2000 KM west of Bikini Island.

Locality: Surf station at Ocean edge of reef
75 feet by 50 feet deep.

Drainage: _____ Date: May 1, 1946

Water: _____

Vegetation: Coral, channels,

Time: 9:45 & 11 AM

Bottom: _____

Shore: _____ Current: surging

Distance from shore: _____ Tide: low

Depth of capture: 3 feet Depth of water: _____

Method of capture: 20 lb & 30 lb. derris root.

Collected by: L. P. Schultz and party.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This reef is rather solid with not many channels, the largest go back not over 50 feet from the breaking surf. The reef is level and flat without any tidal pools of any kind for as far as the eye can see.

Fishes discarded -

102 Acanthurus triostegus

10 Acanthurus (black with purple spots base of soft dorsal and anal fins.)

The following fishes were counted, measured
when wrapped for packing.

Miscellaneous (56)

Acanthuridae

121-130-1
111-120-###
110-###
100-1
90-####
80-###
61-70-1
40-1

S-46-120-220*

Holocentridae

101-110-1
100-11
90-
80-11
70-
60-###1111

Scaleless
Blennies

71-80-11
70-###1111
60-###1111
50-###111
40-###111
30-###11111111
20-111

Epinephelus

191-200-1
160-1
150-1
140-1
120-11
110-1
100-1
40-1

Arogon

80-1
70-###

Pomacentridae

40-1
20-1

Labridae

119-120-1
100-
90-111
80-111
70-1
60-###
50-###111
40-###
30-11
20-111

Scarus - 220-1

Mullidae - 180-1

Index of
abund = $\frac{\text{no. fish}}{\text{area sq. yds}} =$
 $\frac{326}{25 \times 13} = \frac{326}{325} = 1.00$

few invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-~~120~~¹²¹ Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Erika Island at western end
on ocean reef.

Drainage: _____ Date: May 4, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Invertebrate

2-teeth preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-122 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Boro Island on leeward side in
or near channel

Drainage: _____ Date: May 5 / 1946

Water: _____

Vegetation: _____

Time: Late P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 40 fathoms Depth of water: _____

Method of capture: Hooks and line

Collected by: Mr. Kohler

Preservative: not preserved except 2 teeth. Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This shark weighed about 800 lb.
I went over on the YP and made
the following measurements.
I identified the shark as Galeocerda
cuvieri or tiger shark. Its liver
weighed somewhere around 200 lb or
more. This female had numerous
eggs but no embryos.

See other side of page for measurements.

Gill openings female without embryos.

]]]]]]

Very slight indication of
dark spots along upper
sides.

Following figures in feet and inches

Tip of snout to: (measurements projected, ^{not around} curvature of body)

- middle of caudal fin 11'9"
- tip of caudal fin (upper lobe) 13'10"
- dorsal notch caudal peduncle 10'11"
- ventral " " " " 10'10 1/2"
- origin of first dorsal 4'2 1/2"
- " " second " 9'4"
- " " anal fin 9'8"
- insertion of pectorals 3'1"
- " " pelvis 8'2"

lower edge 1st gill opening 2'5"
 " " 5th " " 3'3"

Length of dorsal fin from origin to tip of front edge 1'4 1/2"
 " " anal " " " " " " " " 9 1/2"
 " " second dorsal " " " " " " " " 7"
 " " pectoral " " insertion " " " " " " 1'10 1/2"
 " " pelvic " " " " " " " " 10 1/2"
 " " " " " " " " " " of inner " 1'2"
 " " pectoral " " " " " " " " " " 1'3 3/4"
 " " upper lobe caudal fin from caudal ped. notch to tip 3' 1/2"
 " " lower " " " " " " " " " " 1'6 5/8"
 " " from rear base ^{1st} dorsal fin to lowest tip same fin 8 1/2"
 " " " " 2nd " " " " " " " " 6 1/2"
 " " " " anal " " basal " " " " 5 3/4"
 " " 1st dorsal origin to basal tip of same fin 1'10 1/2"
 " " 2nd " " " " " " " " " " 1' 1/2"
 " " anal " " " " " " " " " " 11 1/2"

width lower lobe caudal fin at widest point 7 1/4"
 " upper " " " " " " " " " " 9 1/4"

Length of 1st gill opening 6"
 " " last " " " 4 1/2"
 distance lower edge 1st gill opening to lower edge last one 11"
 diameter eye 1 1/2"
 Rear of eye to front of spiracle 2 3/4"
 " " spiracle to upper edge 1st gill opening 1'6 3/4"
 Tip of snout to rear corner of mouth 1'5 1/2"

Invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-124 Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Enyu Island reef on ocean side

Drainage: _____ Date: May 8, 1946

Water: _____

Vegetation: _____

Time: 11 AM - 3 PM.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: Not low

Depth of capture: _____ Depth of water: _____

Method of capture: Turning over coral slabs

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This collection of invertebrates was made rather high up on the reef by turning over coral slabs. The spirally white & black striped snails were laying eggs under the slabs on under side. Usually there was a large one, probably female, and 2 here were 1 or two smaller ones, probably males. The eggs were about 3 or 4 mm in diameter, white-grayish - soft, membrane about 2 or 3 dozen, occupying a space 2 inches in diameter. They were close together.

The Portuguese men of war were picked up
on the beach sands.

about 10 fish.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-125 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Ocean reef at south end of
Bikini Island

Drainage: _____ Date: May 10, 1946

Water: _____

Vegetation: _____

Time: AM

Bottom: _____

Shore: _____ Current: 1

Distance from shore: _____ Tide: 1/2 high

Depth of capture: _____ Depth of water: _____

Method of capture: Berris net

Collected by: L. P. Schultz & Frank Coker

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

9 fish.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-126 Sta. No. _____

State or Country: Marshall Is.

County: off Bikini Island City: _____

Locality: in Lagoon.

Drainage: _____ Date: May 11, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 15 feet Depth of water: _____

Method of capture: Sediment Trap

Collected by: Kenneth Emory

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Invertebrates,

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-127 Sta. No. _____

State or Country: Marshall Is.

County: Bikini Atoll City: _____

Locality: Ronuk Island reef

Drainage: _____ Date: May 13-14, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

above specimens taken at night
with flashlight on reef; turning
over rocks.

65 fishes discarded
192 preserved
257

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-128 To 152 Sta. No. _____
State or Country: Marshall Is. Bikini Atoll
County: Pomuk Is. City: _____
Locality: Lagoon side at east end of Pomuk Island among slabs of coral beach rock.
Drainage: _____ Date: May 14, 1946
~~Water:~~ Area fished 40 by 30 yards.
Vegetation: Algae, _____
Time: _____
Bottom: sandy and among rocks
Shore: _____ Current: _____
Distance from shore: _____ Tide: low
Depth of capture: to 2 1/2 feet Depth of water: _____
Method of capture: Cube trap, 20 lb.
Collected by: L. P. Schultz
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed

This habitat consisted of big slabs of broken up beach rock in 2 1/2 feet of water at low tide. These rocks laid over each other, and underneath them were numerous smaller ones. Algae - mostly Halimeda grew on the rocks.

The following fishes were discarded

- 54 acanthuroids
- 2 Siganus
- 3 Epinephelus
- 6 Mugilidae

over.

Following fishes with color sketches or color descriptions:

- | | |
|------------------------------|----------------------|
| 5-46-128-Labrid | 5-46-140-Holocentrus |
| 129-Dascyllus | 141-Holocentrus |
| 130-Acanthurid | 142-Holocentrus |
| 131-Pomacentrid | 143-Holocentrus |
| 132-Mullet | 144-Myripristis |
| 133-Carangid | 145-Siganus |
| 134-eel | 146-Labrid |
| 135-Apogonid | 147-Scarus |
| 136-Holocentrus opercularis. | 148-Acanthurid |
| 137-Surmullet | 149-Surmullet |
| 138-Epinephelid | 150-Labrid |
| 139-Acanthurid | |
| no numbers | 151-Pseudochromid |
| Symphoid | 152-Pseudochromid |

Following fishes measured when propped for shipment including above on this page.

		Scarus	Scales
<u>Acanthuridae</u>	<u>Pomacentridae</u>	180-1	blennies
151-160-1	131-140-1	160-1	70-1
130-1	70-11	140-1	50-1
120-1	60-#####	<u>Mullidae</u>	40-11
110-11	50-###	160-11	30-1
100-11	40-11	120-1	<u>Epinephelus</u>
90-1	20-1	110-1	180-1
40-111	<u>Apogonidae</u>	90-11	140-1
<u>Holocentridae</u>	71-80-1	<u>Miscellaneous</u>	80-1
241-250-1	70-111	(23)	70-1
340-1	60-###	<u>Mugilidae</u>	40-1
160-1	50-11	160-1	
150-11	40-1111	150-1	
140-11	30-###	140-1	
120-1	20-111		
110-1	<u>Labridae</u>		
100-1	101-110-1		
90-111	100-111		
80-1	90-1		
70-1	80-1		
	70-###		
	60-1111		
	50-###		
	40-1111		
	30-111		
	20-11		
<u>Eels</u> 23			

$$I = \frac{257}{1200} = .214$$

1 sea horse? or pipe fish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-153 Sta. No. _____

State or Country: Bikini Atoll

County: Middle of City: _____

Locality: Bikini Lagoon

Drainage: _____ Date: May 1, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 10 fathoms - then to surface Depth of water: open

Method of capture: Plankton net, 10 cm. diam.

Collected by: Dr. Martin Johnson

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

See also 5-46 -

fish tagged 21
35 big eyed scad
56

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

211.

160 to 172; 176 to 179;

Acc. No.

Tag No. S-46-154-157; Sta. No.

State or Country:

Eniwetok Atoll

County:

City:

Locality:

Eniwetok Lagoon at Bawditch Anchorage, southeast end off Eniwetok Is.

Drainage:

Date:

May 20, 1946

Water:

to June 6.

Vegetation:

Time:

Bottom:

Shore:

Current:

Distance from shore:

Tide:

Depth of capture:

Depth of water:

Method of capture:

Hooks and line with bait.

Collected by:

Welsh and Schaefer of Bawditch

Preservative:

Temp:

Air:

List of species or kinds, with tag numbers if drawn or discussed:

S-46-154 - Red spotted snapper. Body reddish orange with red spots. Margin of pectoral with wide yellow band; posterior margins of soft dorsal and anal, caudal fins, with wide yellow band.

S-46-155 - *Acanthurus*

S-46-156 - *Snapper, Litvinus*

S-46-157 - *Snapper, Litvinus*

160 - *Echeneis*

161, 162 - *Caranx* - two species

163 to 169 - *Siganus*

170 to 172 - *Lutjanus* - opercle with bright orange spot, some with a black blotch in center near rear edge of orange spot; pectoral fin pale orange; caudal with wide orange band posteriorly.

over

S-46-173 - Needlefish

To this collection I have added somewhat more than 20 big-eyed scad that are not tagged but wrapped in cloth and bear collection no. S-46-154

~~S-46-176~~ - Balistes - May 27;

S-46-177 - Echenis

S-46-178 -

S-46-179 - Epinephelus

S-46-211 - Balistes

8 fishes ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-158 Sta. No. _____

State or Country: Eniwetok Atoll

County: _____ City: _____

Locality: Light at night off Bowditch anchorage
southeast end of lagoon about 1 1/2 miles

Drainage: of Eniwetok Is. Date: May 19 1946

Water: _____

Vegetation: _____

Time: 9:30 & 10:15 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Marine light 100 watts - 2 dipnets

Collected by: L. P. Schultz & assistant.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Very few fishes were seen and
Crustaceans were scarce too.
The water was not unusually
rough

114 fishes discarded ✓
189 " preserved ✓
303

Invertebrates collected
FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-159 Sta. No. _____
State or Country: Eniwetok Atoll
County: _____ City: _____
Locality: Reef of Eniwetok Island near south west end on ocean side in surf.
Drainage: _____ Date: May 20, 1946
Water: Area fished was about
Vegetation: 35 by 30 yards square.
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: Low
Depth of capture: _____ Depth of water: _____
Method of capture: 20 & 30 lb. cube root
Collected by: L. P. Schultz
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This ocean reef, as the result of two tankers on the rocks at the reef entrance, has been covered with heavy oil. The reef is a dead one, the Lithothamnium ridge is black, nothing seems to be growing except a filamentous algae. Even the big statipennal sea urchins are lacking. Corals are dead on upper surfaces. It is only down deep in channels that algae and other life thrives.

Two quart jars with invertebrates.

any

Following fishes were discarded in field.

Acanthurus ~~dog~~
 Triostegus (6)
 141-150 - III
 140 - III III III III
 130 - III III I
 120 - III
 110 - III
 100
 90

Acanthurus
 with purple caudal spots
 161-170 - II
 160 - I
 150 - III
 130 - III
 120 - III I
 110 - III III III III III
 100 - III III III I
 90 - III
 80 - I

Scarus
 380-1
 350-1
 330-1
 300-1
 280-1
 270-1

Following fishes measured, ~~when~~
 wrapped for packing.
 Miscellaneous (21) Epinephelus

Acanthuridae
 231-240 - 1
 160 - ~~III~~ III
 150 - III - 140 - III
 130 - II
 120 - III
 110 - III II
 100 - III III
 90 - I
 60 - I
 50 - III III II
 40 - III III III III III
 30 - III III I
 20 - I

Pomacentrids
 160 - I
 150 - II
 60 - II
 40 - I
 20 - I

170-1
 130-1
 120-11
 110-III
 100-1
 90-1
 80-1

Labridae
 100 - II
 70 - I

els 4
 Holocentrus
 60 - III
 50 - III

Scarus
 320 - II
 280 - I
 240 - I
 250 - III
 410 - I
 330 - I

Scaleless
 blennies
 100 - I
 90 - ~~II~~
 80 - II
 70 - III
 60 - III
 50 - III III
 40 - III III III
 30 - III I
 20 - I

$$I = \frac{303}{35 \times 30} = .241$$

$$I = \frac{303}{1050}$$

392 fishes discarded ✓
369 " preserved ✓

761

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-~~160~~¹⁷⁴ Sta. No. _____

State or Country: Marshall Is.

County: Niimitob Atoll City: _____

Locality: Tieroru Island on south east corner of reef of island, lagoon side

Drainage: _____ Date: May 21, 1946

Water: Area searched about 200 by 200 feet

Vegetation: _____

Time: 11:30 to 2 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: 30 lb. cube net

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This was a lagoon type of reef with pools and channels. Most of the fishes were on the bottom off the edge of the coral ledge in 10 feet or more of water and were not recovered, including a large *Polynemid*.

There were 260 *Mullids* (yellow streaked form) counted on reef but not picked up. The measurements of those recovered give an average or sample of those left. Also 60 *Acanthurus* like were not picked up.

Coral growths low, not luxuriant, except at outer edge of reef.

over

Following fishes measured, counted then discarded.

Mullida
 231-240 II
 230-III
 220-III
 210-III
 200-III
 190-III
 180-III
 170-III
 160-III
 150-II
 140-II

Acanthurus
 131-140-III
 130-III
 120-III
 110-I
 100-III
 90-II
 80-II
 70-I

Following fish measured when wrapped for shipment.

Mullida (yellow streaked)
 240-1
 230-II
 220
 210-1
 200-III
 190-III
 180-III
 170-III
 160-III
 150-III
 140-1
 110-III
 100-1

Acanthuridae
 220-1
 180-1
 170-1
 160-II
 150-III
 130-III
 120-III
 110-III
 100-III
 90-III
 80-III
 70-1
 50-1
 40-II

Pomacentridae
 120-1
 80-1
 60-III
 50-III
 40-II
 30-II

Scarus
 160-1
 140-1
 130-III
 120-III
 110-1

Epinephelus
 120-1; 110-1; 90-1

Apoгонidae
 70-III
 40-1

Labridae
 120-1
 110-II
 90-1
 80-II
 70-III
 60-III
 50-1
 40-1

Scaliger blennies
 130-1
 110-1
 90-III
 80-1
 70-III
 60-III
 50-III
 40-1

Miscellaneous
 (153)

$$I = \frac{761}{67 \times 66} = \frac{761}{4422} = .170$$

Holocentrus
 120-1
 80-1
 60-1

Eels (19)

Invertebrates ~~only~~
1 fish - puffer

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-175 Sta. No. _____

State or Country: Eniwetok Atoll

County: _____ City: _____

Locality: Furur Island reef

Drainage: _____ Date: May 22, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: to 2 ft.

Method of capture: Turning over rocks

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

S-46-175 tied to small brown colored ~~fish~~ ~~and~~ Tridacna.

The small puffer was wrapped with invertebrates -

8 fishes preserved ✓
7 fishes discarded ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

South

185; 190-194; 199

Acc. No. _____ Tag No. S-46-180; Sta. No. _____

State or Country: Erimwetok Atoll

County: Northwest Passage, about 4/5

Locality: mile south of 'Bigil' island
anchored at edge of reef

Drainage: _____ Date: May 26³⁰ 1946

Water: _____

Vegetation: _____

Time: At night 2 AM.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 30 feet Depth of water: _____

Method of capture: Hooks and line fishing

Collected by: S. P. Schutts and crew of USFV 5463

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

S-46-180 ♀ Whitetip ^{leg} fin shark -
Length to caudal peduncle notch 4'
Length from tip snout to tip of tail 7' 7 1/2"

The following gray sharks of same species
of which two small adults were preserved
at Bikini

Length to caudal notch		Total length		Sex
inches	notch	mm	inches	mm
46.5	3' 10 1/2"	1180	60 5'	1525 ♀
46	3' 10"	1170	60 5'	1525 ♀
44	3' 8"	1120	57.5 4' 9 1/2"	1460 ♀
40	3' 4"	1015	53 4' 5"	1345 ♀
41	3' 5"	1040	54 4' 6"	1370 ♀
41.5	3' 5 1/2"	1055	60 5'	1525 ♀
67.5	5' 7 1/2"	1725	91.5 7' 7 1/2"	1825 ♀

no males were taken

only

S-46-185 - Echeveris
S-46-190 - "
S-46-191 - "
S-46-192 - Eulamia
S-46-193 - Eulamia
S-46-194 - Echeveris
S-46-199 - Carand

1 starfish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-181 Sta. No. _____
State or Country: Eriwetoko Atoll
County: Chimieero Island ~~city~~ reef moat
Locality: side of island rather close to
island but in water of depth not likely
Drainage: exposed at low tide. Date: May 25, 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: _____
Collected by: Dr. W. R. Taylor
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

This starfish is of a bright grayish blue or delft blue.

1 qt Crustaceans,
34 fishes

FIELD DATA RECORD ✓
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-182 Sta. No. _____

State or Country: _____

County: Erinnetob Atoll City: _____

Locality: Lagoon at Bowditch Anchorage
off Erinnetob Island

Drainage: _____ Date: May 23, 1946

Water: _____

Vegetation: _____

Time: 9:15 to 10:15 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: 2 dipnets with light at night

Collected by: S. P. Schultz and assistant.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

There are few fishes that come to the light but Crustaceans were abundant. The big eyed scud were numerous and feeding on the fish that came to the light.

255 small fishes; $\frac{1}{2}$ mt. invertebrates ✓
 36 flying " halfbeaks ✓
 1 " " ✓
 292 south

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

Acc. No. _____ Tag No. S-46-183 Sta. No. _____

State or Country: Eriswetals Atoll

County: ~~Northwest~~ Passage Is. on leeward

Locality: Side of reef 2 miles south of Rigi Island.

Drainage: _____ Date: May 24, 1946

Water: _____

Vegetation: _____

Time: 8:30 to 11:30 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Light at night - 2 dip nets

Collected by: S. P. Schuth & Frank Cali.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

2 qts of small fishes
 1-gal. tanks of flying fishes.
 I think this long beaked halfbeak is the same species that I saw sailing some 50 feet through the air at Bikini.
 about $\frac{1}{2}$ mt. invertebrates

156 fishes ~~from~~ ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

South

Acc. No. _____ Tag No. S-46-184 Sta. No. _____

State or Country: Eriuetob Atoll

County: Northwest Passage City: 4/5 mile

Locality: south of Rigi's Island on leeward edge of reef.

Drainage: _____ Date: May 25, 1946

Water: _____

Vegetation: _____

Time: 9 PM to 11 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Light at night - 2 dipnets.

Collected by: L. P. Schultz & Frank Cali

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The invertebrates were placed with ^{S-46} 183 since there were but a few.

252 fishes discarded ✓
676 fishes preserved ✓
92 also invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-186, 200 to 204 Sta. No. _____

State or Country: Eruwetols Atoll

County: Mui Island in City: surf of

Locality: Ocean reef

Drainage: Area fished was Date: May 28, 1946

Water: about 100 yards along reef

Vegetation: and 30 yards deep. Time: 8-11 AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: 30 lb. cube net + dipnets

Collected by: L.P. Schultz & assistants

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Mui Island reef at surf was dead or nearly so from oil from wrecked tanker - the reef was level with a few low corals at or near the dead Lithothamnium ridge. There were the usual surge channels. No pools, as the surf broke and tide came in it carried the fish back across the reef where we picked them up for $\frac{1}{4}$ mile where they were carried by the current

Following fishes were discarded after measuring

Siganus
~~270~~ 270-1
~~250~~ 250-###1
~~240~~ 240-####
~~230~~ 230-######11
 220-######111
 210-######111
 200-###1
 190-###11
 180-111
 170-1

Mullidae
 191-200-1
 190-1
 180-
 170-###1
 160-######1111
 150-######1111
 140-######111
 130-11
 120-11
 110-1

Mugil
 360-11
 290-1
 230-1
 220-1
 180-1

Various fish
 (Acanthurid)
 230-1
 220-1

Acanthuridae
 170-11
 160-1
 150-###11
 140-###1
 130-###1
 120-###1
 110-#########
 100-#########
 90-######1111
 80-###
 70-1

Myripristis
 200-1
 190-###
 180-11
 170-
 160-1

Balistes aculeatus
 160-1
 150-
 140-1
 130-1

Epinephelus
 170-11
 160-1
 150
 140-1
 130-11
 120-1
 110
 100-1

$$I = \frac{928}{100 \times 30} = \frac{928}{3000} = .309$$

see next page

Continued

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. Tag No. S-46-186 Sta. No.

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: May 28, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The following fishes measured when wrapped for shipment.
Scaleless blennies

- 110 - 1
- 100 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 90 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 80 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ 1
- 70 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 60 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 50 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 40 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 30 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~
- 20 - ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~ ~~###~~

- S-46-200 - Crab
- S-46-201 - eel
- S-46-202 - "
- S-46-203 - "
- S-46-204 - "

S-46-186 *Spinephelus*
330 mm.

miscellaneous
(158)

over

Acanthuridae

221-230-1
200-1
190-11
180-
170-1
160-1
150-11
140-1
130-1111
120-1
110-1111
100-11
90-1
80-11
70-
60-1
50-11
40-1111
30-1111

Epinephelus

140-11
130-111
120-
110-11
100-111
90-1111
80-11
70-1
60-1
50-11
40-1

Scarus

280-11
200-1
160-11
120-1
110-1

Labridae

110-1
100-111
90-1
80-1111
70-111
60-111111
50-11111
40-11

Holocentridae

190-1
180-1111
170-
160-11
150-
140-11
130-11
120-
110-11
100-
90-1
60-1
50-1

Eels

(25)

Mullidae

170-1
160-11
120-11
110-11
100-1
90-11

Mugilidae

250-1
230-1
220-1
210-1
200-1

Pomacentridae

130-1 80-11
120-1 70-111
110-1 60-1111
50-111111
40-11
30-1111
20-1111

66 fishes discarded ✓
150 " preserved ✓
216

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-187 Sta. No. _____

State or Country: Emmetts Atoll

County: Liriuier Island City: reef in ocean

Locality: surf

Drainage: Area fished about Date: May 29, 1946

Water: 50 yards by 30 yards

Vegetation: _____

Time: 8 & 11:30 AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: 25 lb cube net + dip nets

Collected by: L.P. Schuth & assistants

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef has the usual surge channels and one large pool partially connected with two surge channels, some 10 ft deep. The corals were dead, so was the Lithothamnium ridge from oil from wrecked tankers at Deep Entrance. The dead corals were only 6 to 8 inches high even close to surf. About 5 minutes after the poison was placed - two big comers rolled in and carried the poison for back on the pavement like reef - but it then ran back out about 3 surge channels, but rather diluted.

The following fishes were measured and discarded in the field

Scarus	Acanthuridae	Epinephelus
280-1	170-1	150-1
270-	160-III	140-
260-1	150-II	120-1
250-	140-III	110-1
240-II	130-	100-1
230-	120-1	80-1
220-1	110-III III	70-1
210-	100-III III III	
200-1	90-III III III	
190-	80-II	
180-	70-1	
170-	60-	
160-1		
150-1		
140-1		
130-1		
120-1		
110-1		

The following fishes were measured when wrapped for shipment.

S-46-187 - 320 mm, Epinephelus

Scaleless	BleNNies	Mullidae	Mupilidae
90-1	60-III II	180-1	200-1
80	50-III		
70-1	20-II		

Bolocentridae	Scarus	Acanthuridae	Labridae
240-1	230-1	160-III	180-1
210-1	210-II	150-III	170-1
200-II	200-1	140-III 1	140-1
190-III	170-1	130-1	80-1
180-III	160-1	120-1	70-1
170-1	150-II	100-III	60-II
160-III	160-1	90-III	50-II
150-1	110-1	80-III	40-
130-1	100-II	70-1	30-1
60-II	81-90-1	50-III	
50-III			

Miscellaneous

(29)

Epinephelus	Pomacentridae	fish
140-1	80-III	(4)
120-1	70-1	
100-1	60-III	
80-III	50-1	
70-II	40-1	
60-1	20-1	

$$I = \frac{216}{50 + 30} = \frac{216}{1500} = .144$$

173 fishes preserved. ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-188 Sta. No. _____

State or Country: Eniwetok Atoll

County: Lisianski Island City: _____

Locality: a tidal pool, high up on the reef and reached only by highest tides

Drainage: Area about 30 yards Date: May 29, 1946

Water: by 5 yards

Vegetation: filamentous algae

Time: 11-11:45 A.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: to 2 feet Depth of water: _____

Method of capture: 5 lb. cube net

Collected by: L. P. Schultz and assistants

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following fishes were measured when wrapped for shipment.

Mugilidae	Kuhlia	Echinephelus
170-1	120-###	160-1
160-###	110-###	150-
150-###	100-1	140-###
140-###	90-1	130-11
130-###	80-1	120-###
70-11	70-	110-1
60-###	60-	100-###
	50-1	90-1

Pomacentridae

- 100-1
- 90-###
- 80-###
- 70-###
- 60-###
- 50-1
- 40-###

Lutjanus

- 150-1
- 100-1

$$I = \frac{173}{5 \times 30} = \frac{173}{150} = 1.153$$

1964 fishes discarded (1944) ✓
374 " preserved ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

568

399-400

Acc. No. _____ Tag No. S-46-189; Sta. No. _____

State or Country: Eniwetok Atoll

County: Rigi Island - reef on

Locality: lagoon side or lagoon reef.

Drainage: _____ Date: May 30, 1946

Water: Area fished about 70 by 748 yards.

Vegetation: 200 by 200 feet Time: 8 & 12 AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: 4 ft Depth of water: 4 ft

Method of capture: 30 lb. cubic root & dip nets

Collected by: S. P. Schurtz and assistants

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef in the lagoon ~~was an~~ had an abundant ~~one~~ with of coral growths about 3 feet high of many kinds, bottom sand, with channels between. The current was swift and carried away many fishes. This reef was much like the ocean reef at Eniwetok & Cherry Is. at Bikini.

The following fishes were measured then discarded.

Mullidae	Siganus
230 - IIII	290 - II
220 - I	310 - I
210 - IIII II	270 - IIII
200 - IIII III	260 - I
190 - IIII IIII	
180 - IIII IIII III	
170 - IIII	
160 - IIII I	
150 - I	over.

(10) not measured

Fish discarded

Acanthuridae

110 - ##
 100 - ## ### III
 90 - ## ## ## ## ## ## ## ##
 80 - ## ## ## ## ## ## ## I
 61-20-1

(10) not measured

Scarus

130 - II
 120 - ## I
 110 - ### III
 100 - ## III
 81-90-1

Epinephelus 270-1

The following fishes measured when wrapped.

Labridae

130 - III
 120 -
 110 - II
 100 - ## ##
 90 - ## II
 80 - ## ## III
 70 - ## ## ## ## I
 60 - ## ## ## ## ##
 50 - ## II
 40 - II
 30 - I

Holocentrus

90-1

eels 37

Epinephelus

290-1
 110 - I
 100 - I
 90 - IIII
 80 - II
 70 - I
 60 -
 40 - I

Pomacentridae

80 - II
 70 - II
 60 - ## ## ##
 50 - ## ## IIII
 40 - I
 30 - I

Apogonidae

70 - II
 60 - I
 50 - I

Siganus

270-1
 240-1

Acanthuridae

230 - I
 220 - I
 210 - I
 180 - I
 170 - I
 160 - III
 150 -
 140 - I
 130 - I
 120 -
 110 - I
 100 - II
 90 - ## ## ## I
 80 - ## ## ## IIII
 70 - III

Scarus

160 - I
 150 - I
 140 - I
 130 - ##
 120 - ## II
 110 - ## IIII
 100 - ## III
 90 - ## ##
 80 - III

Scaleless blennies

100 - III
 90 - I
 80 -
 70 - IIII
 60 - ##
 50 - I

Mullidae

200 - I
 190 - I
 180 - I
 160 - I
 150 - I

Miscellaneous

(77)

568
~~70140~~
~~62100~~
 568 = 128
~~668~~
 4422

Mugilidae

50-1

468 fishes preserved ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-195 Sta. No. _____

State or Country: Eniwetok Atoll

County: Ruijow Is. City: _____

Locality: Lagoon reef, scattered coral heads of poor growth.

Drainage: _____ Date: June 2, 1946

Water: Area fished 70 by 140 yards.

Vegetation: _____

Time: _____

Bottom: Sand

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 4 or 5 ft. Depth of water: _____

Method of capture: 20 & 25 lb cube net + dip nets

Collected by: L. P. Schultz & assistants

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This reef was a poor one, the groups of coral heads were far separated and the bottom was shifting sand. Fishes were scarce, none were discarded.

The following fishes were measured when ^{wrapped}

Lobridae	Pomacentridae	Epinephelus
160-1	91-100-III	191-200-1
140-1	90-II	170-1
130-1	80-III	160-1
90-II	70-III	100-1
80-	60-III	70-1
70-III	50-III	60-1
60-III	40-III	
50-III	30-III	
40-III	20-III	
30-III		
20-1		

over

Continued
Acanthuridae

191-200-1
190-1
160-1
150-11
140-1
130-111
120-1
110-11

Mullidae

210-11
200-11
190-
180-11
170-1
160-1
150-11
140-11

Scarus

190-1

Caranx

210-1
200-1

Eels

(23)

Miscellaneous

(225)

Apogonidae

60-1111
50-1
40-111
30-1111111
20-1111111
1111111

Holocentridae

70-1
60-1

$$I = \frac{468}{70 \times 140} = \frac{468}{9800} = .048$$

90 fishes preserved
2 globular starfish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-196 Sta. No. _____

State or Country: Eriwetok Atoll

County: Rujons Island City: _____

Locality: Reef on ocean side

Drainage: _____ Date: June 2, 1946

Water: _____

Vegetation: _____

Bottom: Largely gravel & cobble bars. Time: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: to 1 ft. Depth of water: _____

Method of capture: Dip nets, 2 lb. cube net.

Collected by: Dr. J. P. E. Morrison and F. Cali

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

43

107 fishes discarded (=107) ✓
788 " preserved ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

895

205,206;

Acc. No. Tag No. S-46-197, Sta. No.

State or Country: Eniwetok Atoll

County: ~~Taitheiripucchi~~ Is City:

Locality: Lagoon reef with numerous but scattered coral heads

Drainage: Date: June 1, 1946

Water: Area fished 70 by 140 yards

Vegetation:

Time:

Bottom: Sandy

Shore: Current:

Distance from shore: Tide:

Depth of capture: to 3 ft Depth of water: to 3 ft

Method of capture: 25 lb. cube root odynets

Collected by: L. P. Schultz and assistants

Preservative: Temp: Air:

List of species or kinds, with tag numbers if drawn or discussed:

The small stone fish had under sides of pectoral fins orange in color, with black-orange ornate spots.

The following fishes measured when discarded

Acanthuridae	Siganus	Eupomacentrus
130-II	170-III	210-III
140-III	160-I	120-III
180-II	150-II	140-I
230-I	180-III	110-II
200-II	170-II	100-III
110-I	160-I	90-II
150-III	150-I	80-II
90-III		
	Searus	Holocentrus
	280-I	210-I
	210-I	170-I
	200-III	
	120-I	
	100-I	
Pomacentridae		
80-III		
70-III		
90-III		

also 10

Following fishes measured when wrapped for shipment

Pomacentridae

99-100-1111
 90-###-### 1
 80-###-###-### 11
 70-###-###-###-###-###-### 111
 60-###-###-###-###-###-###-### 1111
 50-###-###-###-### 1
 40-###-###
 30-###-### 1
 20-###

Holocentridae

180-1
 170-1
 140-1
 100-111
 90-11
 80-1
 50-11

Mullidae

201-210-1
 180-1
 170-1
 160-1
 130-1
 120-1

Scarus

240-111
 230-1
 220-11
 210-1
 200-
 190-11
 180-11
 170-1
 160-1
 150-1
 140-
 130-1
 120-
 110-11
 100-1111
 90-
 80-1111
 70-11

Acantharidae

250-1
 200-111
 180-1
 170-1
 160-11
 150-1
 140-11
 130-1
 120-
 110-
 100-11
 90-11

Alogonidae

100-1111
 90-
 80-###-111
 70-###-###-###-111
 60-111
 50-
 40-###-1
 30-###-1
 20-11

Siganus

170-1
 160-1
 150-1

Eels

(92)

Miscellaneous

(337)

Caranx - 220 mm } Caranx
 5-46-205 - 270 mm }
 5-46-206 - 300 mm }

Epinephelus

190-1
 140-1
 130-11
 120-
 110-11
 100-1111
 90-###-111
 80-1111
 70-11
 60-11
 50-11

Labridae

160-1
 140-1
 120-11
 110-111
 90-###-1
 80-###-11
 70-###-###-11
 60-###-###-###-1
 50-###-###-###-11
 40-###-111
 30-11

$$I = \frac{895}{70 \times 140} = \frac{895}{9800} = .091$$

157 fishes discarded ✓
406 " preserved ✓

20 invertebrates, etc

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

564

Acc. No. _____ Tag No. 5-46-198^{207; 208} Sta. No. _____
 State or Country: Eniwetok Atoll
 County: Araaburu Is City: _____
 Locality: Ocean reef among coral heads of abundant growth.
 Drainage: _____ Date: June 3, 1946
 Water: no fished 20 yards by 100 yds.
 Vegetation: _____
 Time: _____
 Bottom: Sandy.
 Shore: _____ Current: _____
 Distance from shore: _____ Tide: _____
 Depth of capture: 6 ft. Depth of water: 10 ft.
 Method of capture: 25 lb. cap's root + dipnets
 Collected by: L. P. Schultz & assistants.
 Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef was made up where I poisoned with an abundant growth of coral heads in water 2 to 10 ft deep with narrow channels.

Following fishes measured then discarded.

Acanthuridae	Holocentridae	Mullidae - yellow streaked
150-1	130-II	260-1
140-1 not picked up	110-III ⁶⁰	210-II
90-1	100-III	180-1
80-1	90-1	170-III III I
		160-III III III III III III III III
		150-III III III III III III III III III
		140-III III III III I
		130-III
		120-II
		6 not picked up
Scarus	Lutjanus	
220-1	150-1	
240-1	140-III	
190-II	130-II	
180-1	120-II	
160-III		
140-1		
Epinephelus		
130-1; 100-1		

over

on this reef I collected specimens of
a globular sea urchin, with orange spines
using an algae as a shade. Dr. Taylor
~~Pocockiella~~ ^{identified it as} Pocockiella. This
was a flat small algal growth, pale
gray green - about $\frac{1}{2}$ to $\frac{3}{4}$ inches
across and thin as a blotter (ink).

15 sea urchins of above with algal shields lost
off.

- 1 - sea cucumber
- 1 - 12 rayed starfish
- 1 - Tridacna - brown mantle
- 2 - slate ferret sea urchins

$$I = \frac{564}{20 \times 100} = \frac{564}{2000} = .282$$

Continued

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. Tag No. S-46-198 Sta. No.

State or Country:

County: City:

Locality:

Drainage: Date: June 3, 1946

Water:

Vegetation:

Time:

Bottom:

Shore: Current:

Distance from shore: Tide:

Depth of capture: Depth of water:

Method of capture:

Collected by:

Preservative: Temp: Air:

List of species or kinds, with tag numbers if drawn or discussed:

The following fishes measured, when wrapped for shipment Acanthuridae / Serranidae

<p>Holocentridae</p> <p>190-1</p> <p>150-1</p> <p>140-### ## 11</p> <p>130-### ## 11</p> <p>120-### ## ##</p> <p>110-### ## ###</p> <p>100-### ## ## 11</p> <p>90-###</p> <p>80-###</p> <p>70-###</p> <p>51-60-###</p>	<p>160-1</p> <p>150-</p> <p>140-11</p> <p>130-11</p> <p>120-</p> <p>110-111</p> <p>100-11</p> <p>90-111</p> <p>80-11</p> <p>70-### 1</p> <p>60-1</p> <p>50-1</p> <p>40-</p> <p>21-30-1</p>	<p>300-1</p> <p>210-11</p> <p>150-11</p> <p>140-</p> <p>130-1</p> <p>120-</p> <p>110-1</p> <p>100-</p> <p>90-1</p> <p>80-11</p> <p>70-1</p> <p>60-</p> <p>50-</p> <p>40-1</p> <p>also S-46-207 - 350 mm S-46-208 - 360 mm.</p>
<p>Eels (10)</p>	<p>Lutjanus</p> <p>140-1</p> <p>130-1</p> <p>150-11</p> <p>140-###</p> <p>130-###</p> <p>120-1</p>	<p>Miscellaneous</p> <p>(94)</p> <p>over</p>

Pomacentridae

70-III
60-###
50-###
40-II

Mullidae

170-1
160-III
150-1
100-1
90-1

Scarus

200-1
160-1
140-II
130-1
120-III
90-III

Labridae

120-II
110-1
100-II
90-III
80-III
70-###
60-II
50-III
40-1
30-
20-1

Scaleless
blennies

130-1
110-
100-II
90-
80-
70-1
60-###
50-###
40-###
30-III
20-1

Apozonidae

100-###
90-###
80-###
70-###
60-###
~~50-###~~
40-###
30-1

1 - globular starfish orange spined

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-209 Sta. No. _____

State or Country: Eniwetok Atoll

County: Runit Is - reef area City: _____

Locality: ocean side

Drainage: _____ Date: June 7, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: 2 ft Depth of water: _____

Method of capture: Face mask

Collected by: L.P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Saw a large manta ray - about 8 feet across just 100 ft off shore in 10 ft of water but near surface.

The starfish was yelloworange spined.

CROSSROADS JUNIOR

TU 1.8.5

June 7 46

Page one

BOWDITCH CHIEF LANDS RECORD-BREAKING (?) BARACUDA -
(Exclusive by Special Correspondent to ACS-4)

Eniwetok:

James H. Norton, CMOMM of the USS BOWDITCH, using a live Spanish Mackarel as bait, landed a 61 inch Baracuda Wednesday, June 5. The weight of the fish was estimated at approximately 65 pounds. The world's record according to the World Almanac is listed at 60 1/2 inches.

Chief Norton states that the fish took at least 300 feet of line in an effort to free itself. After a 25 minute fight the Chief finally succeeded in bringing it alongside and it was gaffed at the gangway. He also states that he isn't satisfied and hopes to land "a bigger one someday in the near future".

Dr. Schultz of the National Museum, Washington, D.C., took motion pictures of the fish.

page two

CROSSROADS JR.

TU 1.8.5

London: Britain's war-time prime minister Winston Churchill had some caustic things to say about Russia in the House of Commons today. Churchill says that if seeds of World War III are being sown anywhere they are being sown in eastern Europe. Prime Minister Attlee speaking much more moderately said only that he hopes what he called "our Russian friends" could be led to a better understanding of ways of democracies.

Churchill's remarks brought angry replies from Communist members of Parliament. One of them shouted, "The almighty dollar is deciding Britain's foreign policy. If there is a menace to world peace today it is not coming from the east but the west."

Chicago: In one of the worst tragedies of its kind 58 persons died last night when fire swept the 22 story Masse Hotel in downtown Chicago. Some of the victims leaped to their deaths in panic from the upper floor rooms.

Washington: President Truman stepped into the Maritime dis-

1 barracuda

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-210 Sta. No. _____

State or Country: Eniwetok Atoll

County: at Bowditch Anchorage

Locality: Eniwetok ~~Atoll~~ off island

Drainage: _____ Date: June 6, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 10ft. Depth of water: _____

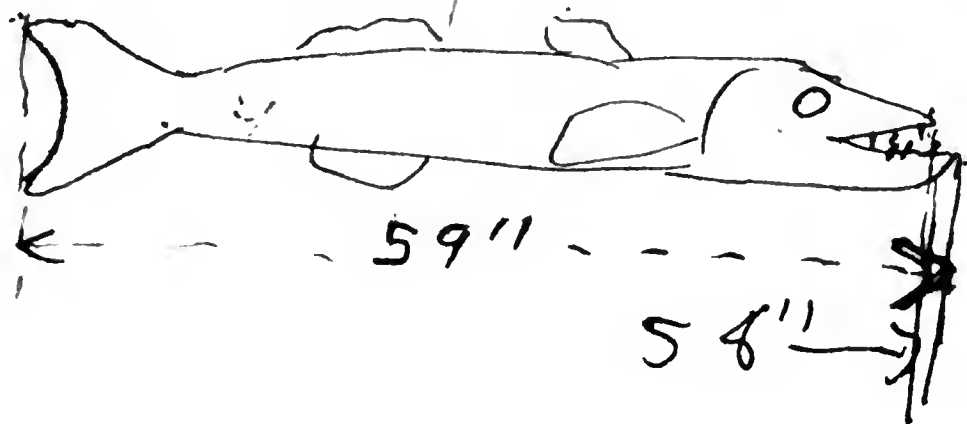
Method of capture: Line with bait on rod and reel.

Collected by: James H. Norton - C M O M M. USN.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This barracuda measured 59" total length, and 58" tip of snout to end of tail



Still pictures taken on films #4 black & white.

1 - pelagic ~~fish~~ seabird

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. 5-46-212 Sta. No. _____

State or Country: Bikini Atoll

County: Bikini Lagoon 5 miles north

Locality: of Enyuks west

Drainage: _____ Date: May 3, 1946

Water: _____

Vegetation: _____

Time: 2 P.M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 1 fathom Depth of water: _____

Method of capture: Plankton net

Collected by: Dr. Martin Johnson

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

272 fishes preserved!

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

few invertebrates

Acc. No. _____ Tag No. S-46-213 Sta. No. _____

State or Country: Rongelap Atoll

County: Arbar ds. City: _____

Locality: Ocean reef at western end

Drainage: _____ Date: June 16, 1946

Water: _____

Vegetation: Area fished about 50 feet by 100
among poor growth of coral

Bottom: Coral rocks, sand,

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: to 4 ft. Depth of water: _____

Method of capture: 20 lb. cube root

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The reef was composed of low coral growths and a few large shallow pools with sandy bottom. Because the currents carried the cloud of poisons out to sea so rapidly I considered the days work a poor one.

Three shells, the holed ones, ^{Pteroscopus} were found and turned over to Dr. Morrison.

The following fishes were measured, then wrapped for shipment.

Eels (36)

Scaleless blennies

101-110-1

Miscellaneous

Mullidas

Holocentrus

(75)

160-1

70-1

120-1

Acanthuridae

111-120-1
~~109~~
110-### 11
100-### ### ### 1111
90-### ### ### ### ###
80-### ### ### ### 11
70-
60-1 (76)
50-
40-1

Pomacentridae

80-1111
70-11 (21)
60-11
50-### 1
40-1
30-1111
20-1

Apogonidae

80-1
70-11 (5)
20-11

Serranidae

130-1
120-11
110-1
100-111 (11)
90-1
80-1
70-1
40-1

Scarus

160-1
140-1
130-1
120-1
110-11 (8)
100-1
80-1

Labridae

110-11
100-11
90-1111
80-### 1
70-1111 (36)
60-1111
40-1111
30-### 1111
20-11

$$I = \frac{272}{16 \times 33} = .507$$

(528)

126 fishes preserved. ✓

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-214 Sta. No. _____
State or Country: Rongelap Atoll
County: Arad Island City: _____
Locality: high tide pool on ocean side in rock beach
Drainage: _____ Date: June 16, 1946
Water: _____
Vegetation: area fishes 5 by 40 feet.
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: to 8 inches Depth of water: 8 inches
Method of capture: 3 lb. cube root
Collected by: S. P. Schultz
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Some big waves may have washed a small percentage of the blennies out of the two pools poisoned.

One labrid fish had its head with numerous black spots, extending back to anterior part of dorsal fin and on base of pectoral fin; body pale pinkish to white with two large orange blotches along back, the first one near middle of length of body, 2nd ~~year~~ near last third of dorsal fin length; above each orange spot mostly on dorsal fin an ocellate bluish-black spot encircled with whitish blue line; pectoral pale pink; caudal distally beyond basal black bar, pale pinkish. Head & sand a few ^{out} fish for identification.

Fish measured then wrapped for shipment.

Labridae	Pomacentridae	Mugilidae	
50-III	50-1	50-III III III III	(51)
40-1 (9)	40-1	40-III III III III III III III III	
30-III	30-1 (5)		
20-II	20-II		

Huhlia	Scaleless blennies	
40-III III	60-III	(49)
30-III III	50-III III	
20-III (21)	40-III III	
	30-III III III	
	20-III III II	

$$T = \frac{126}{22.2} = 5.68$$

497 fish preserved. ✓

FIELD DATA RECORD *few invertebrates*
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. *S-46-215, 229, 230* Sta. No. _____

State or Country: ~~Eniata~~ *Rongelap Atoll*

County: *Eniata Is.* City: _____

Locality: *Lagoon reef at north end.*

Drainage: _____ Date: *June 17, 1946*

Water: _____

Vegetation: *Coral and algae in moderate abundance.* Time: *9 to 12:30*

Bottom: *Area fished and searched about*

Shore: *100 feet by 300 feet* Current: _____

Distance from shore: _____ Tide: *low*

Depth of capture: *to 7 feet* Depth of water: *to 7 feet*

Method of capture: *20 ~~25~~ lb. wire net*

Collected by: *L. P. Schultz*

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Some mollusks were turned over to Dr. Morrison.

*S-46-229 - Variola louti - 360 mm.
S-46-230 - Tylosurus - eaten off near middle of length by a shark.*

The following fishes were measured when wrapped for shipment.

<i>Holocentrus</i>	<i>Miscellaneous</i>	<i>Apogon</i>
<i>131-140-1</i>	<i>(154)</i>	<i>80-1</i>
<i>130-1</i>		<i>70-###</i>
<i>120-1</i>		<i>60-###</i>
<i>110-### (41)</i>	<i>Eels 53</i>	<i>50-### 35</i>
<i>100-###</i>		<i>40-###</i>
<i>90-###</i>		<i>30-###</i>
<i>80-###</i>		<i>20-###</i>
<i>70-###</i>		
<i>51-60-11</i>		
<i>50-</i>		

Acanthuridae

- 150-1
- 140-1
- 130-1
- 120-1
- 110-11 (63)
- 100-11
- 90-1111
- 80-11111111111111
- 70-111111111111
- 60-11111111
- 50-111111
- 40-1111

Scarus

- 260-1
- 230-1
- 220-4
- 180-1
- 160-1
- 120-1
- 100-1
- 90-11
- 80-11
- 60-1 (19)
- 40-1

Pomacentridae

- 80-1111111111
- 70-11111111111111
- 60-1111
- 50-1111 (33)
- 40-11
- 30-1111
- 20-1

Yethrinidae

- 120-11 170-1
- 120-1111 (7)
- 110-1

Labridae

- 140-1
- 130-1
- 120-11
- 110-1111
- 100-1111
- 90-1111
- 80-11111
- 70-11111111
- 60-111111
- 50-11111
- 40-1111
- 30-1111
- 180-1

Echinephelus

- 130-11
- 120-
- 110-1111
- 100-1111
- 90-1
- 80-1 (7)
- 70-1111
- 40-11

Mullidae

- 220-1
- 210-1
- 190-11
- 180-11
- 170-1111
- 160-11
- 140-1 (27)
- 120-1111
- 110-1111
- 100-1111

$$I = \frac{497}{3300} = .150$$

1 - discarded
 787 fishes preserved,
 788 total

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

Acc. No. _____ Tag No. S-46-216 Sta. No. _____

State or Country: Rongelap Atoll

County: Eybarbar Island City: _____

Locality: North east end next to Eybarbar Channel; ocean reef and high tidal channels.

Drainage: Area fished about Date: June 18, 1946

Water: 50 by 300 feet.

Vegetation: _____

Time: 10 & 1 P.M.

Bottom: _____

Shore: _____ Current: Moderate

Distance from shore: _____ Tide: low

Depth of capture: to 3 ft Depth of water: to 3 ft

Method of capture: 20 lb. cube net

Collected by: L. P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef consisted of a series of shallow solution channels and pools, or pot holes with a growth of coral about 1 ft high & 5 feet out and beyond. This coral was luxuriant but very short. The surf broke into these channels and surged back and forth.

The following fishes were measured, then wrapped for shipment.

Holocentridae

81-90-111

100-11

120-1

Epinephelus

40-1

50-1

70-111

80-11

90-111

100-111111

110-111

120-1111

130-11

210-1

260-1

(41)

Miscellaneous

(85)

Cels (34)

Apogonidae

70-1

175 discarded (fishes) ✓
~~344~~ fishes preserved ✓
419
594

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

few invertebrates

Acc. No. _____ Tag No. S-46-217 Sta. No. 218, 219
State or Country: Rongelap Atoll
County: Enybarbar Is. City: _____
Locality: Shallow pond like isolated tidal pool at southern end of Enybarbar Is.
Drainage: _____ Date: June 18, 1946
Water: Area fished 100 by 100 feet.
Vegetation: _____
Time: 10 AM & 1 P.M.
Bottom: _____
Shore: _____ Current: None
Distance from shore: _____ Tide: low
Depth of capture: 12 inches Depth of water: 12"
Method of capture: 5 lb. cube net
Collected by: L. P. Schultz
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This high tidal pond was shallow and isolated with about 15 feet of its edges supplied with ~~coral rock~~ beach rock fragments from small rubble to slabs 4 feet in diameter, piled not over a foot deep. The center of the pond was solid and pavement-like.

The following fishes were counted but not preserved and not measured.

Blue colored damselfish - turning gray in formalin - 100

Brown-orange tinged grouper - 50

Labrid with large black spot dorsally on caudal peduncle 25

S-46-218 & 219 spiny lobsters ♂ & ♀

Following fishes measured when wrapped

Epinephelus	Holocentrus	Labridae	Scaleless blennies
240-1	160-III	120-III	130-1
230-1	140-1	110-III	120-III III
210-1	110-1 (6)	100-III III	110-III
170-1	90-1	90-III III III II	100-III
160-1	Scarus	80-III III	90-III III III I
150-1		130-1	80-III III III
140-1		120-1	70-III III III III
130-II		60-III II	70-III
120-III		50-1 (70)	60-1 (54)
110-III III III	Mugilidae		50-
100-II	150-1	Mullidae	40-1
90-III	100-1	110-III	30-
80-II	90-1	100-III (18)	Acantheridae
70-1		90-III I	60-1
60-1 (37)	Lutjanus	7280-III	50-II (6)
50-II	190-1		40-III
40-III	130-1	Arogon	
	120-1	70-1	Cels 2/
		60-1 (8)	
		50-	Miscellaneous
		40-	(54)
		30-III	
		20-III	
Pomacentridae			
140-1			
130-III			
120-1			
70-1			
60-III III III III III III III III III III III			
50-III III III III III III III III III III III			
40-III III III III III			
30-III III			
20-1			

$$I = \frac{594}{33 \text{ by } 33} = \frac{594}{1089} = .545$$

635 fishes measured

FIELD DATA RECORD *a few invertebrates*
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-220 Sta. No. _____

State or Country: Rongelap Atoll

County: Mellu Island City: _____

Locality: Lagoon near center of lagoon shore

Drainage: _____ Date: June 19, 1946

Water: _____

Vegetation: Area fished 100 by 300 feet

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Cube net 20 lb.

Collected by: L. P. Schultz and Earl S. Herald

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This reef was composed of scattered coral heads, not very abundant, channels between them were sand bottom.

The little labrid with double blue lines bordered by blackish line, has green color between these blue streaks; ventrally the color is blue on abdomen; cheek red; pectoral fin pink, base of pectoral red; basal half of dorsal fin orange, distal half colorless; eye pink (iris); distal half of caudal pale bluish translucent, then a reddish bar ~~translucent~~ with a purple tinge, base of caudal blue-green;

The similar labrid with a black spot on upper side of caudal peduncle has a green caudal fin & may be another species? Thought

The following fishes were measured, then wrapped.

Labridae

- 30-1
- 40-### IIII
- 50-### ### II
- 60-### ### I
- 70-### ### ### ###
- 80-### IIII
- 90-### I
- 100-II
- 110-II (75)
- 120-I
- 130-II

Scarus

- 70-###
- 80-III
- 90-II
- 100-I
- 130-I
- 160-I (13)

Pomacentridae

- 30-### I
- 40-III
- 50-### ### ### I
- 60-### ### ### ### ### ### ### ### ### ### ### ### ### ###
- 70-### III (92)
- 80-

Apogonidae

- 30-III
- 40-II
- 50-I (17)
- 60-### I
- 70-###

Scalops
blennies

- 50-I
- 60-
- 70-II (9)
- 80-I

Mullidae

- 70-II
- 80-II
- 90-### I
- 100-II
- 110-I
- 120-
- 130-I (15)
- 140-I

Holocentrus

- 60-I (5)
- 100-III

Eels (76)
Miscellaneous

(207)

Serranidae

- 50-III
- 60-I
- 70-### I
- 80-### ### ### ### ### III
- 90-### ### ### ### ###
- 100-### IIII
- 110-### III
- 120-I (82)

Acanthuridae

- 50-II
- 60-III
- 70-### ### ### ### ### ### IIII
- 80-### IIII
- 90-I (49)

$$F = \frac{635}{3300} = .192$$

no fish

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

area 'slig or snail'
mudibranch

Acc. No. _____ Tag No. 5-46-221 Sta. No. _____

State or Country: Rongelap Atoll

County: Lagoon off Rongelap Island

Locality: _____

Drainage: _____ Date: June 20, 1946

Water: _____

Vegetation: _____

Bottom: _____ Time: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Picked up on coral head

Collected by: LT. ~~Hay~~ G. ~~Hay~~ Kaley USN

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Color when alive deep purple with white ringlike markings.

11 fishes

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-46-222-228; 233 to 236; Sta. No. _____

State or Country: Rongelap Atoll

County: Mill off Rongelap ~~city~~ Island

Locality: at Bowditch anchorage in lagoon

Drainage: _____ Date: June 16-28, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Hook and line off Bowditch

Collected by [Crew of Bowditch, Schultz]

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

- 3 sharks - Eulamia melanoptera ♂
- 1 - Holocentrus Carcharias
- 3 - Snappers.
- 2 snappers
- 1 Caranx
- 1 Stromateid

339 fishes preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

few invertebrates

Acc. No. _____ Tag No. S-46-~~230~~²³¹ Sta. No. _____

State or Country: Pongelap Atoll

County: Kabelle Is. at _____ City: _____

Locality: North end. Lagoon reef

Drainage: Area fished 50 by 100 ft. Date: June 20, 1946

Water: _____

Vegetation: Coral heads rather abundant

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: to 6 ft. Depth of water: 4 1/2 ft

Method of capture: 10 lb. cube

Collected by: L. P. Schultz and Earl S. Herald

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef was very narrow, next to a channel of deep water between the two islands. The coral growths were abundant but short. The channel was 10 to 15 feet deep.

Tag S-46-231 was placed with a ^{small} fish that had a white snout; a wide vertical bright orange band from nape past eye and rear of head to withers and breast; an ocellate black spot in distal part of dorsal fin anteriorly, bordered by yellow-orange; The orange bar at rear of head was bordered posteriorly by a narrow black band dorsally, also the orbit was black bordered posteriorly.

over

Following fishes measured when wrapped.

Apozonidae

30-11 (3)
60-1

Acenthurus

130-1
90-1
80-1 (4)
50-1

Serranidae

130-
120-1
110-
100-111
90-111
80-111
70-11 (14)
60-
50-1
40-1

Pomacentridae

90-111 11
80-111 1
70-111 1
60-111
50-111 1111 (70)
40-111 111 1
30-111 111 111 111
20-111 111

eels (50)

Miscellaneous

(35)

Mugil

140-11
130-1 (3)

Mullidae

100-1 150-1
60-1 (4)
50-1

Holocentrus

~~170-1~~
~~130-1~~
110-1
100-1 (5)
80-11
60-1

Labridae

100-111
90-11
80-1111
70-111 111 111
60-1111
50-111 111 111 11
40-111 111 111 111 11
30-111 111 1111
20-1 (80)

Scarus

80-111 111
70-1111
60-111 1111
50-111 111
40-111 111 111 1
30-111 111 111 111 1
20-11 (71)

$$I = \frac{339}{17 \text{ by } 33} = \frac{339}{561} = 0.604$$

5 fishes

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-232 Sta. No. _____

State or Country: Rongelap Atoll

County: _____ City: _____

Locality: 2 miles west of Bush Island.
in lagoon

Drainage: _____ Date: June 21, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 20 fathoms Depth of water: _____

Method of capture: 18" dredge

Collected by: Dr. W. R. Taylor

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

752 fishes preserved
219 " discarded
971 total

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-237; ^{243, 244} Sta. No. _____
State or Country: Rongerik Atoll
County: Bock Island City: _____
Locality: Ocean reef near middle of sand spit
Area fished 100 by 300 feet.
Drainage: _____ Date: June 27, 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: low
Depth of capture: to 8 feet Depth of water: _____
Method of capture: 20 lb. cube net
Collected by: L.P. Schultz and E.S. Herald
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Bock Island ocean reef consisted of a ledge of beach rock, inside of which were pools connecting with ocean side of reef. These pools at low tide 6 feet deep, then on outside of beach rock were deeper pools down to 10 & 15 feet deep. Coral growths not very abundant, but the rocks were well creviced. Sandy bottom in deeper parts of pools.

A large Carang, with 3 or 4 yellow spots, on side, 410 mm std. length, was not saved.

Other fishes discarded were measured as follows. Siganus 260-1 (4)
160-1
150-1
140-1 over

Mullidae - yellowlined
one

151-160-1
150-
140-III
130-1
120-III (123)
110-###
100-###
90-###
80-11

Acanthuridae

110-1
100-###
90-###
80-###
70-III
60-11 (45)
50-1

Epinephelus

360-1
290-1
270-1
150-1
120-1
100-1 (12)
70-1
60-11
50-11
40-1

Lutjanid with
yellow spot
bare soft dorsal on
backs.

160-III
150-###
140-### (28)
130-###
120-III
110-1

Scarus

290-1
210-1
130-III
110-1 (6)

The following fishes were measured when packed for shipment.

Scarus

7-80-1
90
100-11
110-III
120-1
130-11
140-
150-III
160-III
170
180-1
190-1
210-1
250-1 (20)

Epinephelus

330-1
220-1
190-1
170-1
140-1
120-11
110-11
100-1
90-11
80-III
70-1
60-11
50-###
40-III (44)

Mullidae

180-1
150-1
120-III
110-###
100-###
90-###
80-11
70-III (65)
60-1
50-1
Mullidae
20-###
30-###
40-###
50-11
60-1 (25)

Holocentridae

280-1
200-1
170-1
160-1
150-1
140-1 (12)
100-11
90-11
80-1
70
60-1

Siganus

160-1
140-11 (4)

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-237 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Miscellaneous (6) <u>287</u>		
Scaleless blennies	Acanthuridae	Labridae
11-20-1	50-### 11	20-111
30-####	60-1111	30-111
40-1111	70-### 111	40-### 11
50-11	80-### ### 1	50-#### 111
60-11	90-### ###	60-###
70-111	100-11	70-### ###
80-11	110-1	80-### 111
100-11	120-1	90-### 11
110-11	130-11	100-### 1111
120-1	140-1	110-11
	150-1	120-11

Pomacentridae		Eels 78
90-11	40-11	70-### 1
80-1	30-11	80-1
70-1		
60-1		
50-11		
	Apozonidae	
	80-### 1111	
	30-### ### 1	
	40-### ### 1	
	50-1111	
	60-1111	

29

53

11

46

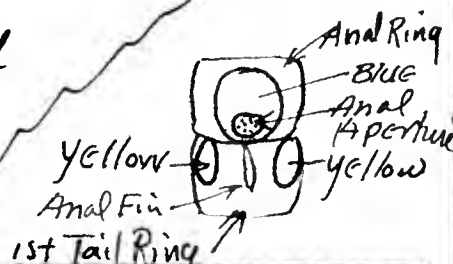
over

tin tags tied on

5-46-237 - *variola louti* - 420 mm.
5-46-243 - *Epimphelus?* 320 mm
5-46-244 - *Carenx*

Corythoichthys fasciatus - color notes by Herald - area around and including anus bright purple with 2 bright orange spots.

$$F = \frac{971}{33 \times 100} = \frac{971}{3300} = .294$$



Corythoichthys fasciatus male and female: the outstanding character of both of these specimens is the round brilliant blue spot which covers only the ventral surface of the anal ring, and not extending upon trunk or tail rings; equally interesting is the presence immediately posterior to this blue area, of two bright yellow small spots which are on the first tail ring and with one on each side of the anal fin. In both specimens the small area immediately surrounding the anal aperture is darker blue than the rest of the blue ~~of~~ area. Both male and female had pigmented dorsals, the pigment being light red and nearly identical to that covering the dorsal part of the snout.

Electric

Blue-Cheek Striped Glinus (sand-hole inhabiting form often observed on the lagoon beach area of Rongalap Island).

(1) The cheek stripe is a brilliant, possibly iridescent blue with a narrow black border.

(2) A brilliant yellow diffuse area beneath eye, on cheek, mandible under jaw and on chin.

(3) The two lateral oblique stripes in the tail are rose ~~yellow~~ orange.

(4) This color scheme should be checked against fresh material, as the series available for these notes had been preserved for about 4 days and some of the color had faded.

ESH

393 fishes preserved
143 fishes discarded
536 total

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Isopods, etc.
Octopus, etc.

Acc. No. _____ Tag No. S-46-238 Sta. No. _____
State or County: Pongerik Atoll
County: Latobak Is. City: _____
Locality: Area fished in lagoon reef 100 by 200 feet.
Drainage: _____ Date: June 28, 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: low
Depth of capture: to 10 feet Depth of water: _____
Method of capture: 20 lb. cube net
Collected by: L.P. Schultz & E.S. Herald
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This reef had an abundant growth of corals, and at its outer edge dropped off into 10 feet of water with sand bottom. Practically no channels in corals except a few wide ones causing a break in the reef.

Following fishes discarded when measured.

Acanthurus	Pomacentridae	Echinokelus
70-11	40-1	260-1
80-III III	50-III	160-1
90-III I (17)	60-III III	140-1 (10)
150-1	70-III III III III	120-1
	80-III III III III	110-1
	90-1 (51)	100-II
Holocentrus	Scarus	90-1
100-11	170-11	80-1
90-1 (4)		40-1
80-1		

Discarded fishes
 Neomysus
 chaplali
 150 - 1
 160 - 1
 170 - 1
 180 - IIII
 190 - II
 200 - IIII
 210 - 1
 220 - II
 230 - III
 240 - III 1

Mullidae
 110 - 1
 90 - 1 (2)
 4 of these preserved, other fishes preserved with isopods still in their mouths.

In the mouths of Neomysus chaplali were on a few specimens $\frac{3}{4}$ in. long isopods.

about 30 Pomacentrids seen but not recovered.

The following fishes measured when packed.

Holocentridae
 61-70 - III II
 80 - III
 90 - IIII (21)
 100 - II
 110 - III

Arogonidae
 20 - III (30)
 30 - III III III
 40 - III III II

Pomacentridae
 40 - III
 50 - III 1
 60 - III III III III 1
 70 - III III III III III III III
 80 - III III III (31)
 90 - III

eels (44)

Acanthuridae
 40 - 1
 50 - 1
 60
 70 - III
 80 - III 1
 90 - 1 (22)
 100
 110 - 1
 120 - IIII
 130 - II
 140 - III

Scarus
 50 - 1
 90 - 1
 100 - 1 (5)
 150 - 1
 170 - 1

Miscellaneous (101)

Mugilidae
 140 - 1
 170 - 1
 190 - II
 200 - III
 210 - II (13)
 220 - 1
 230 - 1

Mullidae
 60 - IIII
 70 - 1
 80 - 1
 90 - III
 100 - III (17)
 110 - 1
 140 - 1
 150 - 1

Continued

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-238 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Serranidae	Labridae	Scaleless blennies
31-40-1111	40-1	50-1
80-11	50-11	60-11
90-111	60-111 1	70-111
100-111	70-111 111	80-1 (9)
110-1	80-111 1	90-1
120-11	90-111	100-1
130-1 (19)	100-1	
150-1	110-1 (31)	
210-1	120-1	
	130-1	
	140-1	

$$I = \frac{536}{33 \times 67} = \frac{536}{2211} = 0.243$$

2 fish preserved
1 discarded

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-239; 240 Sta. No. _____
State or Country: Rongerik Atoll
County: off Sato back is. City: _____
Locality: 200 feet off in 60 feet water.
Drainage: _____ Date: June 28, 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Hooks and line, fish bait
Collected by: Crew of YMS 463
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

S-46-239 - Caranx or Stromateid
S-46-240 - Caranx " "

The following gray shark - Eulamia
was discarded - a ♀ no embryos
snout tip to caudal notch 113.5 cm.
" " " tip of tail 141.0 cm.

591 fishes discarded
 505 " preserved.
 1096

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

Acc. No. _____ Tag No. S-46-241 Sta. No. _____
 State or Country: Rongerik Atoll
 County: Eniwetok Is. City: _____
 Locality: Ocean reef in surf Area fished
300 by 100 feet.
 Drainage: _____ Date: June 29, 1946
 Water: _____
 Vegetation: and on reef
 Time: _____
 Bottom: _____
 Shore: _____ Current: _____
 Distance from shore: _____ Tide: _____
 Depth of capture: _____ Depth of water: _____
 Method of capture: _____
 Collected by: Schultz & Herald
 Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Lithothamnium ridge poisoned the poison drifting back to loose rocks near shore. This ridge was beautifully developed but surge channels were short with no deep pools at their inner ends; corals on pavement part of reef about 6 inches high and rather scarce.

361 goatfishes with yellowish lateral band were counted on the beach but not picked up. Other fishes discarded and measured were.

Epinephelus

280-1
 130-1
 120-11 (11)
 110-1111

100-1
 90-111
 80-11
 70-1

Scarus

210-1
 180-1
 170-11 (10)
 160-1
 150-
 140-
 130-1
 120-1111

over

Fishes measured and discarded (continued)

Mullidae
(yellow lateral band)

100 - 11
 110 - III III 1
 120 - III III
 130 - III III (97)
 140 - III
 150 - III III III
 160 - III II
 170 - III III III

180 - III
 190 - III III
 200 - III III
 210 - III
 220
 230 - 1
 240 - 1
 250 - 1

Acanthurus

60 - 1
 70 - III III III III 1
 80 - III III III III III III III
 90 - III III III III III III III
 100 - III
 110 - 1 (106)
~~120 - 1~~
 120 - 11
 140 - 11

The following fishes were measured when packed for shipment.

Acanthuridae Labridae

30 - 1
 50 - III
 60 - 1
 70 - III II
 80 - III III 1
 90 - III III 1
 120 - III
 130 - 1 (42)
 140 - 1
 150 - 1
 170 - 1

30 - III
 40 - III III III III III
 50 - III III III
 60 - III III III II
 70 - III III III III III
 80 - III III III
 90 - III III III
 100 - III 1
 110 - III (123)
 120 - 1
 130 - 1
 210 - 1

Scombrs

100 - 1
 110 - II
 120 - 1
 140 - 1 (10)
 150 - III
 160 - 1
 180 - 1

eels (19)

miscellaneous
 (72) (30)

Holocentridae

50 - II
 60 - III (20)
 70 - III
 80 - III 1
 90 - II
 140 - 1
 180 - 1

Serranidae

40 - III
 50 - II
 60 - 1
 70
 80 - III 190 - 1
 90 - III 220 - 1
 100 - III
 110 - 1 (23)
 120 - III
 130 - 1
 140 - II

Continued

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-241 Sta. No. _____
 State or Country: _____
 County: _____ City: _____
 Locality: _____
 Drainage: _____ Date: _____
 Water: _____
 Vegetation: _____
 Time: _____
 Bottom: _____
 Shore: _____ Current: _____
 Distance from shore: _____ Tide: _____
 Depth of capture: _____ Depth of water: _____
 Method of capture: _____
 Collected by: _____
 Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Mugilidae

40 - III III III III III
 50 - III III III
 220 - 1 (34)

Mullidae

100 - IIII
 110 - II
 120
 130 - 1
 140 - 1 (10)
 190 - 1
 200 - 1

Pomacentridae

20 - 1
 30 - III
 40 - III III 1 (22)
 50 - IIII
 60 - III

8 Caecilian blennies

20 - 11
 30 - III III II
 40 - III III III III III I
 50 - III III III III III
 60 - III I
 70 - III III III III
 80 - III I
 90 - III I
 100 - 1 (93)
 110 - 1

Kuhliidae

20 - 1 (2)
 30 - 1

$$I = \frac{1096}{100 \times 33} = \frac{1096}{3300} = .332$$

3057 fishes

FIELD DATA RECORD *few invertebrates*
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. *S-46-242* Sta. No. _____

State or Country: *Ponape Atoll*

County: *Off Eniwetok Is. ~~city~~ 200 yards*

Locality: _____

Drainage: _____ Date: *June 28, 1946*

Water: _____

Vegetation: _____

Time: *3 hours 8-10 P.M.*

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: *Surface* Depth of water: _____

Method of capture: *Marine light at night. 2 dipnets*

Collected by: *Schultz and Herald*

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This large number was taken because a small school of compactly swimming tiny fishes came along and swam right into one of the dipnets. Similar schools were seen off Lato-back Is. too.

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Enlisted Personnel Functioning with Reef Fish Investigations (only a partial list)

Novak, Emil, S2c (3156972)
Stanley, Vernon John S2c (5675964)
Rutherford, Leslie Clendemon S2C (3156174)
Selzer, Arthur Jay S2c (7910941)
Dreyer, Lawrence Morton, S1C (5811719)
Tarzwell, Guy Leroy S2C (3155260)
Swisher, Richard Thomas 2cS (3156363)
Steele, Donald Lee, F2C (3726039)

FPNMH: 8.75

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. ----- Tag No. S-46-245 ----- Sta. No. -----
State or Country: Boku Pass, Bikini Atoll -----
County: Marshall Islands ----- City: -----
Locality: In 7 fathoms at dropoff to deeper part -----
of channel -----
Drainage: ----- Date: 8 July 1946 -----
Water: clear to bottom (sharks easily visible at -----
bottom) occasional corals -----
Vegetation: -----
----- Time: 1900-2100 -----
Bottom: -----
Shore: ----- Current: Very strong -----
Distance from shore: 30 yards ----- Tide: -----
Depth of capture: Surface light ----- Depth of water: -----
Method of capture: Dipnets -----
Collected by: ES Herald and Seaman -----
Preservative: Formalin ----- Temp: ----- Air: -----
List of species or kinds, with tag numbers if drawn or discussed: -----

8 Polydactylus sexfilis (Val)
1 Goatfish
1 Spratuloides delicatulus (with eggs?)
22 Atherinids (small)
2 Carangids (small: 5 mm)

35 Fishes Total (4 net-man hours)

8 3/4 fishes per hour average;

Needlefish were fairly common in the area of the light, but did not succeed in capturing any specimens. One school of mullet came through the light, but again no success. At 2100 the sea was becoming quite rough, so a watch was maintained until 2200. As only one or two fishes had appeared during that time, the light was taken in.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. No. _____

State or Country: Philippines _____

County: Marikina _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: J. S. ... _____

Preservative: F _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

FIELD DATA RECORD

SPEAR

Division of Fishes

U. S. National Museum

Acc. No. ----- Tag No. S-46-246 ----- Sta. No. -----
 State or Country: Bikini Atoll; coral reef in lagoon,
 County: 1/2 mile directly south of City: Amen Island
 Locality: This was an isolated coral area surrounded by
much deeper water
 Drainage: ----- Date: 10 July 1946
 Water: Very clear for at least 7 fathoms
 Vegetation: Large coral clumps separated by sandy areas
 ----- Time: 1130-1500
 Bottom: -----
 Shore: ----- Current: 1 mph
 Distance from shore: ----- Tide: -----
 Depth of capture: 42-48 feet ----- Depth of water: same
 Method of capture: Breaking of coral for sorting in boat
 Collected by: V.E. Brock; E.S. Herald; T. Kohler
 Preservative: Formalin 10% ----- Temp: ----- Air: -----
 List of species or kinds, with tag numbers if drawn or discussed: -----

- 1 Pseudochromid
- 3 Dascyllus sp. (two stripe)
- 50 Dascyllus aruanus (three stripe)
- 18 Gobiodon
- 4 Gobies (very black, 10 mm)
- 6 Gerrids (blue, 10 mm)
- 1 Caracanthus

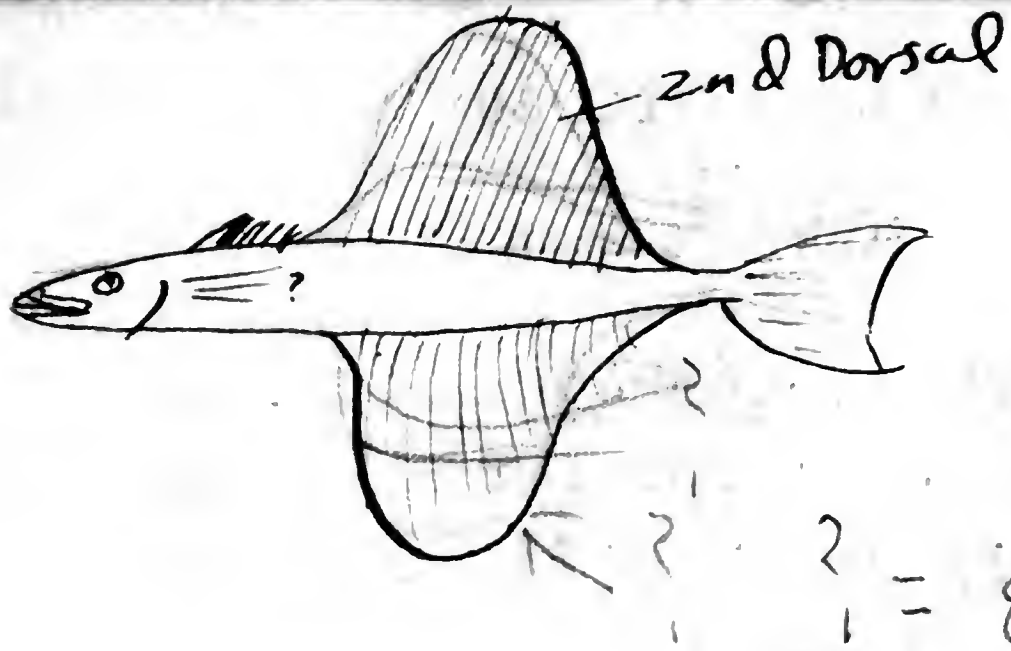
SPEAR^D

- 1 Ctenochaetus strigosus (150 mm?)

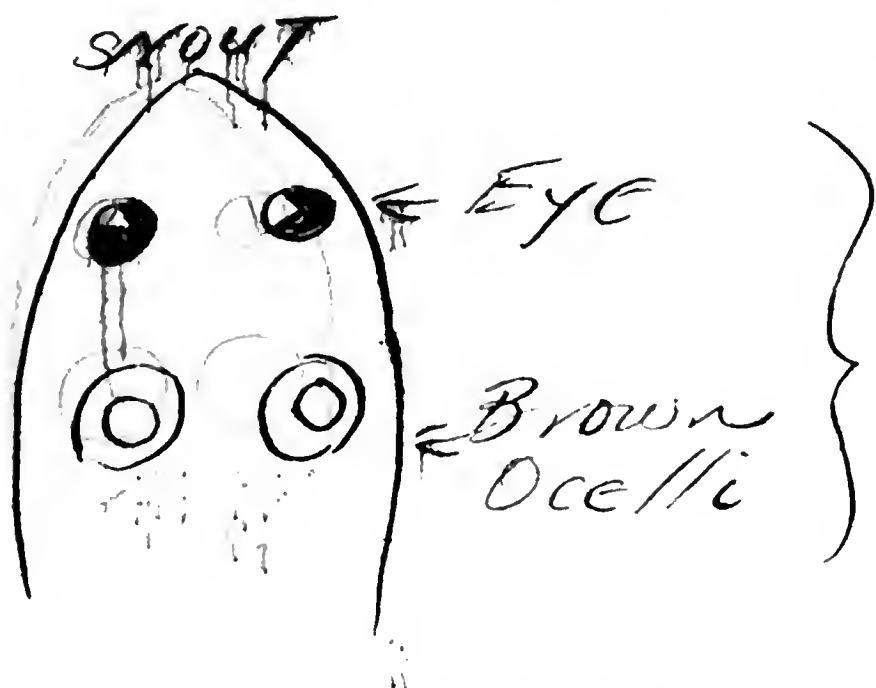
1 Large Tridacna (3 feet across shell) brought up and cleaned; it contained a commensal crab with eggs which was preserved (Correction: not a crab but a shrimp).

ESH observed and followed an unidentified pipefish for about 10 minutes; it appeared to be a sand inhabiting form, and its movements were strongly suggestive of an eel. It was characterized in morphology by gray body color and fine black reticulations---and it was a very long-snouted species, the snout being nearly as long proportionally as that of Syngnathus louisianae.

Diving Equipment: Lambertson and Browne Units together with shallow water line unit



Family - ?
 Genus - ?
 SPECIES - ?
 = *Electridae* G.F.



Parapercid

? = reference to specimen of *Ptereleotris* (G.F.)

The above are very rough diagrammatic sketches of two fishes which were observed; the top individual was most peculiar because of the location of the dorsal and anal exactly opposite of each other---and one being the duplicate of the other; the relative length of the two fins is not exaggerated in this sketch although the tail is probably longer than indicated. The total length of the fish was no greater than 6-8 inches, and he lived in a hole about 4 inches in entrance diameter in a sandy area. When alarmed by the slightest movement, he would instantly dive for the hole, only to return whenever the disturbance was removed.

The second sketch represents a Parapercid which is possibly a deep water relative of the common species so often taken in the shallow reef areas. It was noticeable because of the large brown ocelli on the top of the head and behind the eyes---as indicated.

FIELD DATA RECORD

SPEAR

Division of Fishes

U. S. National Museum

Acc. No. ----- Tag No. S-46-247-248 Sta. No. 247
 State or Country: Bikini Atoll; submerged coral head 9500
 County: yds at 260° from S. end of Bikini Island City: -----
 Locality: 11° 35' 50" North Latitude
165° 28' 40" East Longitude
 Drainage: ----- Date: 11 July 1946
 Water: Clear to 7 fms
 Vegetation: Dense Coral growths, specially fan corals
 Time: 0900-1300
 Bottom: -----
 Shore: ----- Current: Little at Bottom
 Distance from shore: 9500 yards Tide: -----
 Depth of capture: 45-60 feet Depth of water: same
 Method of capture: Sling Spear; Breaking up of coral
 Collected by: V. E. Brock; E. S. Herald; T. Kohler
 Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed:

I. FISHES SPEARED:

1 Parrot Fish, Green 265 mm
 1 Parrot Fish, Bottom Half = Black - 220 mm
 1 Heniochlys 170 mm

2 Sheephead-like Labrids (210 & 215 Mm)

1 Lo vulpinus (150 mm)1 Siganid, blue spotted (160 mm)2 Acanthurus (sp.) (yellow at bases of dorsal and anal) (145 & 150 mm).

(a) SPECIAL TAG (Metal)

1 Labrid (brilliant blue-green) No. 248 (380mm)

II. FISHES COLLECTED FROM BROKEN CORAL

3 Dascyllus1 Eviota5 Gobiodon1 Caracanthus3 Gerrids

III. TOTAL FISHES COLLECTED: 10 (speared) plus
 13 (from coral) equals total of 23

Giant Tridacnas extremely abundant; one specimen 3'4" in width collected; Rainbow runners, white-tipped and grey sharks observed; Siganus common

Diving Equipment: Lambertson and Browne Self-contained Units together with Reg Navy shallow water unit with lines.

EDMUND: 6

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. ----- Tag No. S-46-249 ----- Sta. No. -----
State or Country: Bikini Lagoon, aboard USS BOWDITCH;
County: Anchorage 230 About 3 miles NW of Enyu Id.
Locality: Exact Locality: 3 miles bearing 322 degrees
from the north tip of Enyu Island.
Drainage: ----- Date: 11 July 1946
Water: -----
Vegetation: Unknown
----- Time: 2100-2115
Bottom: Unknown
Shore: ----- Current: -----
Distance from shore: 2 miles ----- Tide: -----
Depth of capture: Surface light ----- Depth of water: -----
Method of capture: Hand Net
Collected by: ES Herald
Preservative: Formalin ----- Temp: ----- Air: -----
List of species or kinds, with tag numbers if drawn or discussed: -----

Light used only for about 15 minutes
at the end of which time it burned out
a fuse and the bulb filled up; 2 men
on dip nets---yielded

3 fishes

FDMMH: 7.5

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. S-46-250 Sta. No. _____

State or Country: Anchorage at Yurochi Island (Code

County: Name: Yuro) Bikini Atoll City: _____

Locality: _____

Drainage: _____ Date: 12 July 1946

Water: Clear

Vegetation: Small growth of fine filamentous seaweed
between isolated coral heads Time: 1900-2100

Bottom: Mostly sandy

Shore: _____ Current: Strong

Distance from shore: 300 yards Tide: _____

Depth of capture: Surface light Depth of water: 30-40 feet

Method of capture: Dipnets under search lights

Collected by: ES Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

3 Needlefishes
27 Atherinids

30 Fishes }
2 Net Mantres } 1/2
 } 15 ph
 } Av.

Two large Fistularia (or Aulostomus?) came swimming through the beam of light; they could not be caught in the dip nets.

Inasmuch as the submarine light had been broken as it was being loaded upon the YMS 463, the only light available was the searchlight of the ship---these, one on each side, were focused as much as possible, and directed along the side of the ship. Seaman Rutherford developed a falling technique for catching the fishes listed above---with feet on the outer rail and another man holding him by the belt---he would fall forward with the net over his head---at a 45° angle from the ship he would bring the net crashing down on top of some unfortunate future USNM specimen. All in all, the technique was quite effective.

The reason for the poor yield in the number of fishes coming to the light was not apparent until the next morning when ESH swam ashore---for then with face mask the barren nature of the bottom was quite evident.

The three needlefishes were between 340 and 360 mm in length; the stomachs were opened, and one specimen was found to contain 3 crustaceans, probably ~~isopods~~ Gonodactylus, a Squillid; another contained two of the small atherinids of the same type as the other 27 specimens collected at this station; and the third contained some decomposed material which looked as though it might originally have been the bodies of the same Atherinids mentioned above.

According to Dr. Martin Johnson, the above mentioned Gonodactylus is a bottom inhabiting form, and is not known to come to the surface---and to his knowledge it has not been taken in plankton hauls---consequently, the needlefish must have gone to the bottom to pick up this Squillid. This is of interest in connection with the _____ mm parapercid found in the stomach of a _____ mm needlefish at station _____, for parapercids are considered to be almost entirely bottom forms---and the local forms have not been observed at any time to be more than a few inches above the substratum.

yards = 2500
Area Poisoned: 20 x 10⁰ FIELD DATA RECORD
Lbs Cube: 15 lbs Division of Fishes
Index: 397/2000 = .198 U. S. National Museum
Personnel: ESH plus 4.

POISON

Acc. No. ----- Tag No. S-46-251 ----- Sta. No. -----

State or Country: Bikini Atoll -----

County: Ocean reef ----- City: -----

Locality: Outside reef of Yurochi (Code Name, Yuro) -----

Island: near Center of Island; the Lithothamnium
didge is about 1 mile out, so the station was run
near the island in one of the deeper areas

Vegetation: Isolated coral heads with sandy
channels between moderately abundant 13 July 1946

Time: 0830-1200

Bottom: Small to 10 ft coral heads sep by sandy areas.

Shore: ----- Current: 1 mph -----

Distance from shore: adjacent ----- Tide: -----

Depth of capture: pizon ----- Depth of water: 1-15 feet

Method of capture: pizon and dip nets -----

Collected by: E. S. Herald and 4 Seamen -----

Preservative: Formalin ----- Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Upon swimming into the beach on this morning, it was very evident that the area was not suitable for running a station---so began to check the outside area and found that most of it was also without coral---the only section have any at all was near the center outside portion of the island---hence this area was chosen.

The following are considered pertinent regarding this station: (a) eels were notable for their absence---for the Apodal forms were only 9 in number as compared with 397 fishes collected. Could it be possible that eels are particularly susceptible to radioactivity---this point should be carefully checked at future stations. (b) Needlefish and halfbeaks were very abundant, but very few were collected as a result of the pizon; (c) the Acanthurid with the orange bar extending back from the opercle was in the area, but it is not believed that any were in the collection.

The following fishes were collected:

- 6 Zanclus coronatus
- 1 Platycephalid
- 11 Synodontids
- 3 Siganids
- 99 Acanthurids as follows:
 - 94 Acanthurus 2-spot & C. strigosus
 - 2 " triopterus
 - 1 " white-tipped tail
 - 1 Naso unicornis
 - 1 " sp.
- 1 Pleuronectid
- 1 Porgy, common (Monotaxis grandoculis)
- 2 Needlefish
- 6 Halfbeaks
- 24 Dascyllus 3-stripe
- 5 Mullet
- 25 Blue Gerrids (?)
- 1 Scorpaenid
- 1 Brotulid
- 1 Pseudocanthid
- 27 Holocentrids (3 species)
- 8 Chaetodonts (3 species)
- 9 Parapercids (2 species)
- 25 Serranids (4 species)
- 17 goatfishes (5 species)
- 105 Pomacentrids (5 species)
- 17 Parrot fishes (3 species)
- 3 Scaleless blennies (2 species)
- 9 eels (3 species)
- 16 Apogon (3 species)
- 70 Labrids (11 species incl exc Gomphosus series)
- 4 fishes, spec unknown (2 species)

397 Total Specimens

65 Total Number of Species

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

SPEAR

Acc. No. _____ Tag No. S-46-252 Sta. No. _____
State or Country: Bikini Atoll
County: _____ City: _____
Locality: Coral Head within the Atoll at the following
position: 11° 33' 13" N. Lat; 165° 28' 39" E. Long.
Drainage: _____ Date: 13 July 1946
Water: Clear
Vegetation: Coral Head
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: 30-45 feet Depth of water: 30-45 feet
Method of capture: Spear and sling
Collected by: Vernon Brock ACCompanied by Emory & Kohler
Preservative: Formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

- 1 Nazo without snout, 350 mm *hexacanthus?*
- 1 Nazo with snout, ~~350~~ mm *170 mm*
- 1 Zanclus, 140 mm *259(?)*
- 1 Epibulus insidiator, about 200 mm
- 1 Serranid, 250 mm
- 1 Emmelichthyid, 205 mm.

6 fishes, Total

Area: 50 x 100 yards FIELD DATA RECORD
Poison: 20 lbs Cube Division of Fishes
Index: 559/5000 = .110 U. S. National Museum
Personell: ESH plus 4 EM

POISON

Acc. No. ----- Tag No. S-46-253-254-255 ~~256-257-258~~ No. 256-257-258

State or Country: Bikini Atoll

County: Ocean reef, deep sandy pools City: Bikini

Locality: Center of outer reef at center of island
(directly out from seabee fence).

Drainage: ----- Date: 16 July 1946

Water: Not too clear; containing much suspended Mat.

Vegetation: Occasional deeper areas---ie 4-6 feet at
low tide; most of reef is rock Time: 1000-1300

Bottom: Collection was made $\frac{1}{2}$ way between shore and

Shore: the lithothamnion ridge Current: 2mph

Distance from shore: ----- Tide: -----

Depth of capture: 1-6 feet Depth of water: same

Method of capture: Poison and dipnets

Collected by: ESHerald and 4 EM

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Tin Tag #254	970 mm male	<u>Fistularia</u>	} another large specimen with these without tag -
255	950 mm female	"	
256	660 mm female	Belonid	
257	690 mm female	"	
258	650 mm female	"	

FOOD HABITS:

No. 254: contained 1 fish, 110 mm and another fish 90 mm disintegrated beyond recognition. No eggs visible or ovary, so considered to be a male, Fistularia

No. 255: Backbone and tail of a fish in the gut---meat on fish entirely lacking---measured 80 mm to caudal peduncle; fin rays of tail 30 mm in length; this female contained lotza eggs. The eggs were about 1 mm in diameter and were contained in an ovary 23 x 15 x 330 mm (TL of fish 950 mm)
Fistularia

No. 256: In the gut was a 105 mm Parapercid of the common species collected at most reef stations; this is interesting in that this fish is rarely observed more than a few inches above the bottom, and the needlefish is normally a surface inhabitant. This 660 mm female had eggs in the ovary which were 2-2 $\frac{1}{2}$ mm in diameter.

Total Collections:

1. Parrot Fishes; 66 specimens (discard 53) *45 species*
2. Eels (4 spec) 22 (4 species)
3. Halfbeaks 54 (1 species)
4. Acanthurids 132 (7 species) (discard 58)
5. Siganids 20 (1 species) (discard 10)
6. Pomacentrids 60 (3 species)
7. Snapper (Yel Str) 1
8. Common Porgy 21
9. Paracirrhites arcatus 6
10. Centropyge flavissimus 6
11. Labrids 70 (15 species as follows: 21, 7, 10, 11, 2, 5, 3, 4, 1, 1, 1, 1, 1, 1)
12. Holocentrids 31 (4 different species)
13. Needle fishes 3

(continued from front side of this page)

No. 257: 690 mm female had eggs in the ovary, but the gut was entirely empty.

No. 258: 650 mm female had eggs in the ovary also, but again the gut was empty.

In connection with food habits, several of the Siganids were opened, and the stomach and gut contents examined carefully. Of those examined, all were found crammed full of a single item---a member of the Chlorophyceae---of the family Caulerpaceae, exact name Caulerpa freycinetii; common name

(identification by Dr. J. W. Taylor). Dr. Taylor calls this the first time that this is the first time that this species of plant has been known to be used by an foraging animal.

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

POISON

Page 2

Acc. No. _____ Tag No. _____ Sta. No. S-46-253
 State or Country: Bikini Atoll; outer reef of Bikini Id.
 County: _____ City: _____
 Locality: _____
 Drainage: _____ Date: 16 July 1946
 Water: _____
 Vegetation: _____
 Time: _____
 Bottom: _____
 Shore: _____ Current: _____
 Distance from shore: _____ Tide: _____
 Depth of capture: _____ Depth of water: _____
 Method of capture: _____
 Collected by: _____
 Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Fishes collected: continued from backside page 1

14.	<u>Epinephalus</u> (common br spotted).....	12
15.	" (horizontally striped)	1
16.	Goatfishes (2 species:	9
17.	<u>Zanclus coronatus</u>	1
18.	<u>Platycephalid</u>	1
19.	Aulostomid (no filamenton tail).....	1
20.	<u>Apogon</u> (3 species: 4, 9, 5).....	18
21.	Scaleless Blenny.....	1
22.	Pseudochromids (opercular spot).....	2
23.	<u>Chaetodon</u> (3 species).....	4
24.	Puffers.....	4
25.	Trunk fish.....	1
26.	File fish (actually trigger fish).....	1
27.	Parapercids.....	5
28.	Lizard fishes.....	2
29.	Eleotrids, blue cheek stripe.....	2
30.	Miscellaneous***3 octopods0)	

Total Fishes Collected.....559

Total fishes discarded.....121

Total fishes remaining in collection.....438

Total Species of fishes in collection.... 65

Acanthurid breakdown (of those not discarded):

60	<u>Acanthurus</u> 2-spot	
7	<u>Ctenochaetus strigosus</u>	
1	<u>Acanthurus guttatus</u>	
1	" <u>triosetegus</u>	Total: 74
3	" yellow tail	
1	" white oper spot	
1	<u>Naso lituratus</u>	

Breakdown of Parrot fishes retained in collection:

6	Blue parrots	
6	Brown parrots with caudal peduncle spot	
1	Parrot, species unknown	
3	small parrots, species unknown	Total 16

Breakdown of Pomacentrids retained in collection:

29	Black with blue spots	
22	Black without blue spots	Total 60
9	Yellow bellied with dorsal fin ocellus	

Measurements of discarded parrot fishes (total 53)

80 mm--1
90 1
100 3
110 0
120 6
130 12
140 7
150 7
160 5
170 0
180 2
190 0
200 5
210 4

Measurements of discarded surg fishes (total 58)

60 mm--1
70 5
80 13
90 19
100 15
110 3
120 2

Discarded Siganids (total 10)

280 mm-2
270 -1
260 -3
230 -1
210 -2
200 -1

Discarded Epinephalus

220 mm-1
170 mm-2
130 mm-1
70 mm-1

FIELD DATA RECORD

LIGHTFPH: 33Division of Fishes
U. S. National Museum

Acc. No. ----- Tag No. S-46-259 ----- Sta. No. -----
 State or Country: Rongelap Atoll at Bowditch Anchorage
 County: ----- City: -----
 Locality: 1/2 mile from Rongelap Island in Lagoon

 Drainage: ----- Date: 17 July 1946
 Water: -----
 Vegetation: -----
 ----- Time: 2100-2200
 Bottom: -----
 Shore: 1/2 mile ----- Current: 2 mph
 Distance from shore: ----- Tide: -----
 Depth of capture: surface light ----- Depth of water: -----
 Method of capture: ESherald; dipnets
 Collected by: -----
 Preservative: Formalin ----- Temp: ----- Air: -----
 List of species or kinds, with tag numbers if drawn or discussed: -----

Tried for the first time---a 100 watt light in heavy side reflector---decided that it was not sufficient light---so will try to obtain higher wattage for future work; the shade on the sides of the lamp also does not allow the lateral dispersion of light as on other types of lights.

Will attempt to have light run everynight as possible---the majority of the work to be accomplished by the seamen assigned to this section---supervision remaining with ichthyologist in chg.

The above collection yielded the following specimens, 66 in number---33 of which may be Dussumerids---the other 33 including some juvenile Synodonts, and others.

2 man net hours and 66 fish or an average of 33 fish per net per hour.

Seamen weilding nets: _____

FPH: 34.5

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. ----- Tag No. S-46-259-A Sta. No. -----

State or Country: Rongelap Atoll at Bowditch Anchorage

County: ----- City: -----

Locality: 1/2 Mile from Rongelap Island in Lagoon

Drainage: ----- Date: 19 July 1946

Water: -----

Vegetation: -----

Time: 2100-2200

Bottom: -----

Shore: ----- Current: -----

Distance from shore: 1/2 mile Tide: -----

Depth of capture: Surface Depth of water: 20 fathoms

Method of capture: Light and dipnet

Collected by: ES Herald

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Seamen doing collecting: Selzer and Stanley

100 watt submarine light with shade

69 fishes collected: 34 Dussumerids; 6 Pempheris
17 larval and 12 small blue fishes, 15 mm
and less.

Average per hour: 34.5 fishes per mnh

FPH: 39½

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. ----- Tag No. S-46-259-B Sta. No. -----

State or Country: Rongelap Atoll at Bowditch Anchorage

County: ----- City: -----

Locality: ½ mile from Rongelap Island in Lagoon

Drainage: ----- Date: 20 July 1946

Water: -----

Vegetation: -----

Time: 2215-2315

Bottom: -----

Shore: ----- Current: -----

Distance from shore: ½ mile Tide: -----

Depth of capture: surface Depth of water: 20 fathoms

Method of capture: by net at surface light

Collected by: ESHerald

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Seamen wielding nets: Rutherford and Aborno

79 fishes collected during the one hour period;
this is an average of 39½ fishes per hour. 4 sharks
were around the light at various times, feeding
upon the fishes attracted to the light.

100 watt light.

FPH: 87.5

FIELD DATA RECORD

LIGHT

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. No. S-46-2590

State or Country: Rongelap Atoll at Bowditch Anchorage

County: _____ City: _____

Locality: 1/2 mile from Rongelap Island in Lagoon

Drainage: _____ Date: Sun 21 July 1946

Water: Very calm

Vegetation: _____

Time: 2100-2200

Bottom: _____

Shore: _____ Current: slight

Distance from shore: 1/2 mile Tide: _____

Depth of capture: Surface Depth of water: 20 fathoms

Method of capture: Dipnet at light at surface

Collected by: ES Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen wielding nets: Rutherford and Drayer

Used same 100 watt light with shade---but turned light on its side so that it threw the beam laterally along the side of the gangway---this was a much more satisfactory arrangement, for it brought to the surface many of the fishes which had previously been just beyond the reach of the net. However there are still many fishes which are down 5-10 feet below the light---which would be available if a fine-netted bait net of about 12 ft diameter were available immediately beneath the light---so shall see if such a net cannot be constructed.

Fishes collected: 175 or an average of 87.5 per man net per hour

The increase in the number of fishes was due to change in position of the reflector light---for now it is used with the light beam directed parallel to the surface ---this bring up the large numbers of small fishes which had previously been just out of reach.

FPNMH: 18

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. _____ Sta. No. S-46-259-E

State or Country: Rongelap Atoll at Bowditch Anchorage

County: _____ City: _____

Locality: 1/2 mile from Rongelap Island in Lagoon

Drainage: _____ Date: Monday 22 July 1946

Water: _____

Vegetation: _____

Time: 1000-1100

Bottom: _____

Shore: _____ Current: _____

Distance from shore: 1/2 mile Tide: _____

Depth of capture: surface light Depth of water: 20 fathoms

Method of capture: net

Collected by: E. S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Light blew out at the end of 1/2 hour, at the end of which time 18 fishes had been collected, for an average of 18 fishes per man net hour.

Personnel difficulties probably accounted for the low catch.

Seamen weilding nets: Swisher and Tinsey

Most interesting was the occurance of a small labrid in the catch of the type most commonly encountered whenever a poison station is run.

For Station S-46-259-D - see S-46-280+281

Acc. No. _____ Tag No. _____ Sta. No. S-46-259-F

State or Country: Rongelap Atoll at Bowditch Anchorage

County: _____ City: _____

Locality: 1/4 mile from Rongelap Island in Lagoon

Drainage: _____ Date: Tues 23 July 1946

Water: _____

Vegetation: _____

Time: 2100-2200

Bottom: _____

Shore: _____ Current: _____

Distance from shore: 1/4 mile Tide: _____

Depth of capture: surface light Depth of water: 20 fathoms

Method of capture: hand nets and 4 ft drop net

Collected by: E. S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen weilding nets: Rutherford and Selzer with new man, Novak, observing.

Four foot hoop with 3 foot bag was used for the first time---it was placed at a depth of about 7 feet and whenever larger fishes which could not be collected with the hand nets--came into the area, the large net was drawn up.

Fishes collected: 42 or an average of 21 fishes per net man hour.

100 watt search lamp used; beam turned horizontal with the surface.

The following fishes were collected:

- 1 Common Labrid---67 mm
- 1 Burrowing Eel---92 mm
- 1 Syngnathus (long snout) 83 mm
- 1 Gerrid---20 mm
- 30 Aterhinids---20-50 mm
- 8 Dusseriids---20-50 mm
- 42 fishes Total

FPMNH: 207 $\frac{1}{2}$

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. _____ Sta. No. S-46-259-G

State or Country: Rongelap Atoll at Bowditch Anchorage

County: _____ City: _____

Locality: In lagoon $\frac{1}{2}$ mile from Rongelap Island

Drainage: _____ Date: Thurs 25 July 1946

Water: _____

Vegetation: _____

Time: 2115-2215

Bottom: _____

Shore: $\frac{1}{2}$ mile Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: Light--dipnets Depth of water: 20 fms

Method of capture: Surface; 4 ft net and dipnets

Collected by: L.S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen wielding nets: Novak and Tarzwell

Total fishes collected: 415 average per man net
hour 207 $\frac{1}{2}$

100 watt beam lamp horizontal to surface.

The following fishes were collected:

404 small Atherinids
7 larger atherinids (approximately 40 mm)
1 juv Scombriform fish (30 mm)
2 Blennies (25 and 12 mm)
2 med sized dussumerids
416 total fishes

FPNMH: 7

FIELD DATA RECORD

LIGHT

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. NS-46-259-H

State or Country: Rongelap Atoll at Bowditch Anchorage

County: _____ City: _____

Locality: In Lagoon $\frac{1}{2}$ mile from Rongelap Island

Drainage: _____ Date: Fri 26 July 1946

Water: _____

Vegetation: _____

Time: 2130-2230

Bottom: _____

Shore: _____ Current: _____

Distance from shore: $\frac{1}{2}$ mile Tide: _____

Depth of capture: surface light Depth of water: 20 fathoms

Method of capture: nets at surface

Collected by: E.S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen Wielding nets: Swisher and Stanley.

Total fishes collected: 18

Fishes per net man hour: 9

FPMNH: 16

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT
HOOK and LINE

Acc. No. ----- Tag No. S-46-296-297- Sta. No. S-46-259-I
298-299

State or Country: -----

County: ----- City: -----

Locality: Rongelap Atoll at Rongelap Island--- $\frac{1}{2}$ mile
from the island in the lagoon---Bowditch
Anchorage

Drainage: ----- Date: 27 July 1946 Sat

Water: -----

Vegetation: -----

Time: 2030-2130

Bottom: -----

Shore: ----- Current: -----

Distance from shore: $\frac{1}{2}$ mile Tide: -----

Depth of capture: surface Depth of water: 20 fathoms

Method of capture: light---nets

Collected by: E. S. Herald

Preservative: formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Seamen wielding nets: Rutherford and Aborno

Total fishes collected: 32 (which included one
juv Caranx and 1 Lepto-
cephalus larvae)

Fishes per net man hour: 16

The following were collected on hook and line from
the Bowditch anchorage as given above:

S-46-296: Brown spotted Serranid 375 mm

S-46-297: Brown blotch Serranid, 330 mm

S-48-298: Caranx sp. 180 mm

S-46-299: Red Snapper, 450 mm \rightarrow (1) ML

Area: 15 x 150 yards
 Cube: 20 lbs
 INDEX: .054 (2250 s yds)

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

POISON
 and
 SPEAR

Acc. No. _____ Tag No. S-46-260-261-262 Sta. No. _____
 State or Country: 263, 264, 265, 266
 County: ocean reef City: _____
 Locality: Outer reef at the center of Tufa Island,
Rongelap Atoll (with 4 specimens from inside lagoon)
 Drainage: _____ Date: 18 July 1946
 Water: clear to subclear in surf.
 Vegetation: _____
 Time: 1100-1500
 Bottom: Corals highly colored; small Ulitho. ridge.
 Shore: _____ Current: Strong
 Distance from shore: _____ Tide: _____
 Depth of capture: _____ Depth of water: _____
 Method of capture: pizon and dipnets
 Collected by: E. S. Herald and V. Brock plus 4 IM
 Preservative: Formalin Temp: _____ Air: _____
 List of species or kinds, with tag numbers if drawn or discussed: _____

The outer side of the island looked good, but the reef current proved to be too strong, diluting the cube to such an extent that it was not wholly effective; V. Brock reported some of the fishes effected on the outer deep reef area---but of types not sufficiently important to warrent their collection. All fishes under S-46-260 were taken on the outer reef of Tufa, except for the following which V. Brock speared on the inside bay:

- 1 Holocentrus with red D., 265 mm
- 1 Trunk Fish, 250 mm
- 1 Puffer, 170 mm
- 1 Chaetodon auriga (?) 170 mm

Where possible, all fishes to be photographed, will be tin-tagged; those photographed on this date were as follows:

S-46-261:	360 mm	Parrot Fish,	Photo AA-CR-139-1030-1
262:	460 mm	" "	" " 2 "
263:	290	<u>Epinephelus</u>	" " " 1030-3 "
264:	175 mm	Goatfish (yellow stripe)	" " 5
265:	155 mm	Kuhlid	" " 6
266:	90 mm	Blenny	" " 8
---	3 ft	<u>Cephalopholis argus</u>	" " 7

Plectrochromes leopardus

This station to be excluded from statistical studies

V.E. Brock speared fishes S-46-261 and 262 as well as those previously listed from the inside of the island. The large Cephalopholis was not preserved.

Total fishes collected at Tufa Island was as follows:

71	Blennies, Scaleless
16	Labrids
12	Acanthurids (10 of 2-spot; 2 of <u>A. tristegus</u>)
5	Corids
4	Kuhliids
5	Mullids (all Yellow-striped species)
3	Serranids (2 <u>Epinephalus</u> and 1 <u>Cephalopholis</u>)
4	fishes speared by VEB in inner lagoon.
3	<u>Miscellaneous</u>
123	TOTAL

Standard Lengths of Fishes Measured (10 mm intervals)

1. Scaleless Blennies: 12 of 20 mm; 50 of 30 mm and 5 of 40 mm and 3 of 50 mm.
2. Labrids: 2 of 40 mm; 4 of 50 mm; 7 of 60 mm and 3 of 70 mm;
3. Goatfishes: one each of the following lengths: 140, 160, 170, 180 and 210.
4. Parrotfishes: one of each of the following: 90, 100, 130, 360 and 460 mm.
5. Acanthurids: one of 60 mm, one of 70mm, 4 of 90 mm, 3 of 100 mm and 3 of 110 mm.

Although the collection was quite poor, it should not be considered that Tufa was devoid of ichthyological interest, for the deep water--10-30 feet just beyond the surge channels were populated with large numbers of fishes of many different species. The following was noted:

1. Nazo was feeding in shallow water on the rocks of no more than 2-3 feet depth (first time such shallow feeding observed by ESH).
2. Sharks were quite abundant after spearing began---mostly gray sharks in the deeper water---and black tips in the shallow water---some of the latter up to 4-5 feet. White tipped absent. VEB saw a shark new to him: it was unique in that the snout seemed to have been composed of two elongated nasal tubes; the length of the specimen was about $3\frac{1}{2}$ feet; VEB also saw another specimen of the fish with elongated dorsal and anal fin described on backside of S-46-246.
Chaetodon ephippium abundant-VEB

Seamen Aiding: Rutherford; Selzer; Stanley; Drayer.

Area: 60 x 125 yards
Poison: 20 lbs Cube
Index: $497/7500 = .063$

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. ----- Tag No. S-46-267, 268, Sta. No. S-46-267

State or Country: ----- 269, 270, 271, 272, 273, 274, 275

County: ----- City: -----

Locality: North End of Eniaetok Island at Pass between Eniaetok and Erapuotsu Island; Rongelap Atoll

Drainage: ----- Date: 20 July 1946

Water: Jagon reef

Vegetation: Coral Reefs moderately abundant

Time: 1200-1500

Bottom: Sandy bottom with corals Negligible at low

Shore: Sandy Current: tide to swift

Distance from shore: ----- Tide: -----

Depth of capture: 1-10 feet Depth of water: same

Method of capture: perizon and dipnets

Collected by: E. S. Herald and V. E. Brock plus 5 EM

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

This station is almost identical with No. S-46-215 which was run on _____. The only difference is that on this occasion the poison was put into the water nearer the Eniaetok Id shore whereas previously it had been put in over the area nearer to Erapuotsu Island. On the way to this station--all localities between the north tip of Rongelap and these islands were checked carefully as it was planned to run a station somewhere in that area--but none suitable were available--hence it a station was run--it was necessary to duplicate No. S-46-215. Seaman Selzer informed us that the previous collection had been extremely strong in eels--such was not the case for this station on 20 July for only 27 eels were collected which .056 percent of the total catch (497 fishes total). It is suggested from this data that perhaps Yurochi and the outer reef of Bikini (S-46-251 and 253) might have been poisoned, either by Donaldson's bunch or by this group--and that such might explain the poor collection of eels at these two stations. Is it possible that eels are much more susceptible to derris than are other species, and that it takes individuals residing in adjacent areas longer to migrate into a freshly poisoned area than it does other species of fishes?

497-20 = 53 eels in 497 fishes
= .106 per cent = 10.6%

The following specimens were photographed:

1031-8 = Blank

S-46-268;	<u>Acanthurus achilles</u>	20 mm;	AA-CR-139-1030-9	
269;	<u>Naso lituratus</u> ,	118 mm;	"	10, 11
270;	<u>Acanthurus triostegus</u>	135;	"	1030-12 10, 11
271;	<u>Eleotris</u> (?)	100 mm	1031-1"	12
272;	<u>Chaetodon</u> pelagicus	63 mm;	1031-2, 3"	1031-4, 2
274;	<u>Monocanthus spilosoma</u>	65;	1031-6"	17 5
275;	<u>Holocentrus</u>	83 mm;	1031-7"	18 6
273;	<u>Centropyge flavissimus</u>	70 mm;	1031-4, 5"	15, 16 3, 4

FOOD HABITS:

The stomachs of 3 narrow-nosed lizard fish were opened and the following contents revealed:

130 mm specimen contained a 110 mm halfbeak---the latter was bent upon itself as otherwise it would not have fitted into the stomach.

115 mm specimen contained a 60 mm labrid---the common species of labrid which is very common in the collections.

115 mm specimen---contain a 40 mm labrid---same species as above.

The following fishes were collected:

18 Halfbeaks	
3 <u>Monotaxus grandicolis</u>	7 File fishes (2 sp)
2 <u>Platycephalids</u>	13 Puffers (2 species)
6 <u>Siganids</u> (small)	15 Pomacentrids (3 sp)
12 <u>Chromis ceourlus</u>	8 Photographed
3 <u>Parcirrhites arcatus</u>	
22 <u>Apocon</u> (all 5 stripers)	
56 <u>Acanthurids</u> (10-43-1-2)	477 Total Fishes Collected
9 <u>Dascyllus</u> 3-stripe	
6 <u>Pylogytes flavissimus</u>	69 Total Species of Fishes
2 <u>Pseudochromids</u>	
1 <u>Amphiprion</u>	
5 <u>Plesiops nigricans</u>	
1 Mullet (Blk Pectoral)	Also 6 octopusuls
2 <u>Fistularia</u>	
3 <u>Scorpiionids</u>	
18 <u>Dussumerids</u>	
1 <u>Caracanthid</u>	
1 <u>Brotulid</u>	
1 Fish sp.	
11 <u>Gobies</u> (2 species: 8-3)	
4 <u>Blennies</u> (4 species)	
27 <u>Eels</u> (8 species)	
37 <u>Epinephalus</u> (2-35: 2 species)	
43 <u>Goatfishes</u> (3 species: 1-2-40)	
25 <u>Synodontids</u> (2 species: 20-5)	
34 <u>Parapercids</u> (2 species:)	
2 <u>Chaetodontids</u> (2 species)	
51 <u>Labrids</u> (12 species: 27-4-5-1-3-1-1-2-1-1-1-7)	
8 <u>Parrot Fishes</u> (2 species)	
17 <u>Holocentrids</u> (3 species)	

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Hook & Line

Acc. No. _____ Tag No. S-46-276-277 ^{to 279} Sta. No. _____
State or Country: _____ 278 and 279
County: _____ City: _____
Locality: Bock Pass, Rongerik Atoll
Drainage: _____ Date: 20 July 1946
Water: _____
Vegetation: _____ Time: 12:00-2:00
Bottom: _____
Shore: _____ Current: 14:15
Distance from shore: 1 mile Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Hook and line
Collected by: Thomas F. Kohler
Preservative: Formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

- S-46-276: Sea Bass, 420 mm (Standard Length)
- S-46-277: Sphryaena obtusata, 520 mm
- S-46-278: Naso eouma, 345 mm (tangled in line by tail spines).
- S-46-279: Eulamia melanoptera, 350 mm male

Total 4 specimens

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Hook & Line

Acc. No. ----- Tag No. S-46-280, 281 Sta. No. ~~6442~~

State or Country: Rongelap Atoll at YMS 354 Anchorage

County: ----- City: -----

Locality: 1/2 mile from Rongelap Island in Lagoon

Drainage: ----- Date: Sun 21 July 1946

Water: -----

Vegetation: -----

Time: 2:20

Bottom: -----

Shore: ----- Current: -----

Distance from shore: ----- Tide: -----

Depth of capture: ----- Depth of water: 7 fathoms

Method of capture: Hook and Line

Collected by: Thomas Kohler

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

S-46-280: Priacanthus/cruentatus, 220 mm

S-46-281: " " 230 mm.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

SPEAR

Acc. No. _____ Tag No. S-46-282, 283 Sta. No. 282
State or Country: _____ and 284 _____
County: _____ City: _____
Locality: Southwest End of Rongelap Island, Rongelap
Atoll
Drainage: _____ Date: 23 July 1946 (Tues
Water: _____
Vegetation: _____
Time: 1200-1500
Bottom: Coral head from 2 fathoms sloping to 133 fms
Shore: 100 yards Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: 10-60 feet Depth of water: 2-133 fms
Method of capture: Spear and sling
Collected by: V. E. Brock; E. S. Herald and T. A. Kohler
Preservative: Formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____
S-46-283: Caranx stellatus, 440 female with eggs
S-46-284: Naso ^{blanvillii} ~~seumei~~, 370 mm

OTHER SPECIMENS:

- 1 Epibolus insidiator, 220 mm
1 Epinephalus sp, 260 mm (blue spots on
dark brown background)
1 Acanthurus n. sp? (white tail and Manhattan
Indian Snozz) 120 mm
1 Ostracion _____ (sp prob sebae?) 115 mm
1 Cirritid, 145 mm

Total Number of Specimens: 7

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

DEEP POISON
and SPEAR

Acc. No. ----- Tag No. S-46-285 Sta. No. 1
State or Country: Rongelap Atoll at North End of
County: Kieshiechi Island ~~Lagoon~~ Side
Locality: A single coral head approximately 10 ft in
diameter and 8 feet high (depth 20 feet)
Drainage: ----- Date: 24 July 1946
Water: clear but with some suspended matter
Vegetation: -----
----- Time: 1300-1600
Bottom: sandy with occasional coral heads
Shore: 75 yards Current: Slight
Distance from shore: ----- Tide: -----
Depth of capture: 20 feet Depth of water: 20 feet
Method of capture: 5 lbs Cube root in water bag; hand nets
Collected by: V. E. Brock and E. S. Herald (diving rigs)
Preservative: Formalin Temp: ----- Air: -----
List of species or kinds, with tag numbers if drawn or discussed: -----
1 Dunkerocampus dactylophorus (57 mm) this specimen
was picked up back in under the base of the
coral head.
1 Syngnathus (grey, long snout) 100 mm? This is the
same species previously observed and noted under
station S-46-246.
1 Cynoglossus (40 mm)
1 Pleuronectid (63 mm)
6 Cephalopholis leopardus (30-90 mm) orange colored
with saddle over caudal peduncle top.
3 Epinephalis chlorostigma (common spotted species)
1 Chorististium sp. n. (?) 45 mm
6 Dascyllus auruanus (3-stripe)
2 " sp. (2-stripe)
27 Apogon sp. (25-63 mm) black bar on caudal peduncle
1 Apogon (5-stripe) --yellow caudal peduncle spot
54 Apogon (eyeline and caudal peduncle spot) there is
a possibility that the 5 larger specimens con-
tained in this series are different because of
their greater depth.
2 Balistids (triggers) 75 and 110 mm; orange base of
clear dorsal and basal; white border around tail
2 Parapercids, 2-spot
2 Synodids (125, 95 mm) blue lateral stripe
1 Synodont (110 mm) body with distinct reddish tinge.

- 4 Pseudocheilinus hexataenia (Labrid) (30-50 mm) (WHF:341)
 2 Wetmorella philippina (WHF vol 7 p 211) (USNM has
 only 4 other specimens of this species)
 6 Blue Gerrids or Pomacentrids
 1 " " " " (black line along outer
 margins of tail---ie dorsal and ventral only)
 5 Abedeuduf (with black pectoral base)
 5 Pseudochromids (brown body color with blk oper spot)
 1 Parrot fish
 2 yellow labrids (common) 50-75 mm
 1 Scrophaenid (27 mm)
 1 Yellow brotulid
 2 Labrids (20 mm)
 1 fish Unknown with opercular spot (18 mm)
 1 Gobiodon
 5 eels of 4 different species
 5 gobies of 3 or 4 new species (45, 26, 20 17 and 14 mm)

153 Total Number of Fishes

37 Total Number of Species

The habitat of the Apogon was quite interesting--
 for they were almost entirely confined to a small
 pocket at the base of the coral head which extended
 back into the coral for about 1 ft and extended
 around for about $\frac{1}{2}$ of the circumference of coral head.

FIELD DATA RECORD

DITP POISON

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-46-286-287- Sta. No. 286
 State or Country: -288-289-290-291-292-293-294
 County: _____ City: _____
 Locality: Near NW End of Rongelap Id., Lagoon side;
single coral head in 18 ft water; (size of coral
 Drainage: head---30' x 30' x 14 ft high) Date: Thurs 25 July '46
 Water: Clear
 Vegetation: _____
 Time: _____
 Bottom: Sandy with widely separated coral heads
 Shore: _____ Current: negligible
 Distance from shore: 100 yards Tide: _____
 Depth of capture: 4-18 ft (15 lbs) Depth of water: 18 ft
 Method of capture: 3 water bags Cube; diving rigs; nets
 Collected by: V.E. Brock; E.S. Herald and T. Kohler
 Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

PHOTOGRAPHED FISHES:

S-46-287:	Platycephalid (145mm)	:	AA-CR-139-1031- 79
"	288: <u>Monotaxis grandoculis</u> (150mm)	:	" 8 /10
"	289: <u>Apogon</u> sp (7-stripe) (130 mm)	:	" 9 /11
"	290: <u>Monotaxis grandoculis</u> (150mm)	:	" 10 /12
"	291: <u>Ctenochaetus strigosus</u> (")	:	" 1032-1,211,12
"	292: <u>Holocentrus diadema</u> (?) (130mm) <i>spinifer</i>	:	" 1032-13
"	293: <u>Myripristis</u> sp (117mm)	:	" " 24
"	294: <u>Epinephalus leopardus</u> (100mm)	:	" " 35

The following fishes were collected:

- 12 Platycephalids (50-160 mm)
- 10 Synodontids with pointed snouts (95-175 mm)
- 17 Ctenochaetus strigosus (105-165 mm)
- 6 Acanthurus 2-spot (45-95 mm)
- 1 Siganus (110 mm)
- 15 Myripristis (around 150 mm)
- 2 Holotrachys (95 and 110 mm)
- 3 Holocentrus diadema (90, 90, 115 mm)
- 3 Holocentrus sammara (140, 140, and 160 mm) striped
with red blotch in dorsal
- 14 Holocentrus sp. clear dorsal and 1 spot on each scale
(90-125 mm)
- 3 Holocentrus sp., no lines, red above and white below
with dorsal read (65-250 mm)

- 7 Monotaxis grandoculis (105-120 mm)
 15 Mullids (yellow lined-goat fishes) (95-140 mm)
 28 Dussumerids (about 1 hour after poisoning, the cube finally diffused towards the surface and caught one of the large schools of this fish swimming in the area).
 3 Centropyge flavissimus
 1 Dascillus trimaculatus (speared)
 11 Pomacentrids (black dorsal spot with yellow caudal peduncle and tail) (30-40 mm)
 3 Pomacentrids (black dorsal fin ocellus circled with blue; top of head yellow with blue stripes).
 5 Pomacentrids (black dorsal fin ocellus circled with blue; breast yellow; blue spot on each scale) 45-60mm
 4 Pomacentrids (Black all over with a few sparsely distributed blue spots & blk oper base (35-80 mm)
 5 Pomacentrids (Black all over with no blue spots but with a black pectoral base) (35-70 mm)
 1 Gomphosus tricolor
 1 Parrot fish, blue, 290 mm
 1 " " , orange head and spot in dorsal (45 mm)
 2 " " , 4-striped (40, 50 mm)
 2 " " , purple brown all over, no tail spot (60-90mm)
 14 " " , bluish, semi-vertically striped (15-45mm)
 12 Serranus urodelops (?) (30-115 mm) one may be different
 1 Serranid, grey (330 mm)
 1 Yellow Snapper with black ~~spot~~ ^{mark} center lat line, 330 mm
 1 Grey Snapper, (?) 2 white spots on top back (115 mm)
 15 Apogon (7 stripe, yellow tail spot (25-60 mm)
 2 " (9 stripe) (70, 75 mm)
 28 " (eyeline---tail spot)
 2 " (3 stripe (heavy black stripes)
 1 Micrognathus sp. (Both pipefishes picked up at base
 1 Doryrhamphus melanopleura of coral head)
 13 eels of 5 different species
 128 misc. fishes of 28 different species.

392 Total fishes

70 Total Species

FIELD DATA RECORD

SPEAR

Division of Fishes
U. S. National Museum~~Think place
S-46-296-299~~Acc. No. _____ Tag No. S-46-295 Sta. No. _____State or Country: Rongelap Atoll at Rongelap Island

County: _____ City: _____

Locality: at Able Buoy $\frac{1}{2}$ mile north of the west end
of Rongelap IslandDrainage: _____ Date: 26 July 1946Water: Naturally

Vegetation: _____

Time: 1100

Bottom: _____

Shore: _____ Current: _____

Distance from shore: $\frac{1}{2}$ mile Tide: _____Depth of capture: 15 ft at top of coral head. Depth of water: 15-115 ftMethod of capture: SpearCollected by: V.E. BrockPreservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- 1 Naso veliferum (165 mm)
- 1 Acanthurus (270 mm)
- 1 Zanclus coronatus (140 mm)
- 1 Siganid (140 mm)
- 1 Serranid (Brown with orange spots) (300 mm)
- 1 Labrid (160 mm)

Chelinus fasciatus

for tag nos 296-299 200
station S-46-296 01
S-46-259 I

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

DEEP POISON
and
SPEAR

Acc. No. _____ Tag No. S-46-300 Sta. No. _____

State or Country: Rongelap Atoll at Tufa Island.

County: _____ City: _____

Locality: Coral heads in lagoon side of island in
28 feet of water.

Drainage: _____ Date: Sun 28 July 1946

Water: not clear---much suspended sediment

Vegetation: _____

Time: 1100-1400

Bottom: Sandy with occasional corals, lg and sm

Shore: 50 yards Current: 1/2 mile per hour

Distance from shore: _____ Tide: _____

Depth of capture: 28 feet Depth of water: 28 feet

Method of capture: 15 lbs cube root and spear

Collected by: V. E. Brock and E. S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following fishes were collected:

- 1 Holocanthus imperator (240 mm) speared
- 45 Dascyllus aruanus (3 stripe)
- 1 Chaetodon auriga (150 mm) speared
- 3 trunk fishes, (180, 185 and 190 mm) speared
- 4 Chaetodon sp.
- 2 Centropyge flavissimus
- 1 Fistularid
- 87 Dyscillus or Pomacentrids(?) Bright blue)
- 3 Ctenochaetus strigosus
- 1 Acanthurus n. sp. (post edge of pectoral with bright yellow stripe and post endge of caudal with white band; otherwise overally black;
- 1 Lethrinid, yellow, 108 mm
- 18 Apogon (5-stripe, yellow tail spot)
- 10 " (7-stripe, yellow tail spot)
- 45 " (eyestripe and tail spot)
- 29 " (with tail bar around caud ped and lg eye)
- 3 " (yellow with white horizontal stripes)
- 1 Carapid (80 mm)
- 5 Common Spotted Epinephalus
- 1 Grey spotted " (200 mm)
- 2 Emmylichthyids
- 1 Flatfish
- 3 Pseudochromids
- 1 Gomphosus

- 5 goat fishes of 3 different species
10 lizard fishes of 2 different species
3 squirrel fishes of 3 different species
33 labrids of 12 different species
21 Parrot fishes of 2 different species
3 Pomacentrids of 2 different species
6 eels of 3 different species
57 Gobies and Eleotrids of 6 different species
(including 13 specimens of the new dorsal spot goby)

406 Total Fishes

56 Total Species

Among the species observed was what was considered might possibly be a new Acanthurid---it was entirely yellow---and of the four specimens observed---the largest was no greater than 5 inches in total length---extending from the opercle backwards on the body in the same position as the bar found on A. olivaceus was a ~~dark~~ bright red bar. Can this possibly be a color phase or the juv of A. olivaceus?

The long-nosed Syngnathus was again observed--- apparently it is quite common on sandy bottoms below the 10 ft depth.

S-46-398 Chaetodon

FPNMH: ~~813~~ 1219

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. S-46-301 Sta. No. _____
State or Country: Rongelap Atoll at Naen Island (Rongelap)
County: _____ City: _____
Locality: Lagoon Side of Island
Drainage: _____ Date: 29 July 1946
Water: _____
Vegetation: _____
Time: 1930-2200
Bottom: _____
Shore: 1/2 mile Current: _____
Distance from shore: 1/2 mile Tide: _____
Depth of capture: surface Depth of water: 13 fathoms
Method of capture: nets
Collected by: E.S. Herald
Preservative: Formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen wielding nets: Selzer and Aborno with
Novac aiding (in removing fish from nets)

Fishes collected:

20 large Atherinids
150 small " "
165 " " "
400 " white, undet
5000 " " " estimated
341 Dussummerids
15 Labrids (gray body color with orange
spot above pect base; two blue
spots in center of caud pedunc
1 " (lg blk spot cen caud pedunc)
2 Octopods
1 larval lizard fish
1 small fish, spiny and with Pölynemid-
like jaw
1 Remora (taken from grey shark caught
during evening)

6097 Total fishes
~~813~~ Fishes per net man hour
1219

Area: 100 x 100 yds
Poison: 30 lbs cube
Index: 820/10,000: .082

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. _____ Tag No. S-46-302 Sta. No. 302

State or Country: Rongelap Atoll at Naen Island

County: _____ City: _____

Locality: West Side of Naen Island

Drainage: Lagoon reef Date: 30 July 1946

Water: _____

Vegetation: _____

Time: 1000-1400

Bottom: many corals---few open spaces which were sandy

Shore: _____ Current: 3mph at high tide
0mph at low tide

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: 1-10 feet

Method of capture: 30 lbs cube root

Collected by: E.S. Herald aided by 5 EM

Preservative: formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- 3 Platycephalids
- 17 Centronyge flavissimus
- 2 Paracirrhites arcatus ALSO
- 19 Ctenochaetus strigosus
- 82 Acanthurus 2-spot 1 Starfish (Linkia?)
- 1 Naso veliferum (Zebrasoma) 1 Octopusal
- 1 Acanthurus triostegus
- 5 Naso lituratus
- 116 Epinephalus (common Brown spotted)
- 1 " leopardus (?) small
- 3 Serranids (large: 2 species)
- 5 Halfbeaks
- 12 Atherinids
- 3 Dussumerids
- 47 Chromis Coeuruleus
- 27 Pseudochromids
- 1 Caranx (small)
- 3 Scorpionids
- 5 Brotulids
- 1 Doryrhamphus melanopleura
- 1 File fish Pervagor
- 1 Plesiops nigricans
- 9 Puffers
- 1 fish sp.
- 6 Dascyllus 3-stripe
- 1 Monotasux grandicollis

OVER

Fishes Collected (continued from front side):

- 8 Gobies (4 species)
- 100 Labrids (12 species)
- 43 Apogonids (4 species)
- 52 Pomacanthids (3 species: 27-17-8)
- 6 Blennies (4 species)
- 3 Snappers (2 species)
- 18 Parrot Fishes (3 species)
- 35 Holocentrids (6 species)
- 3 Flatfish (2 species)
- 9 Chaetodonts (6 species: 1-2-2-2-1-1)
- 39 Eels (5 species)
- 20 Parapercids (2 species: 6-14)
- 33 Synodontids (2 species: 5-28)
- 78 Goatfishes: (3 species: 3-9-66)

820 Total Fishes Collected

855 Total Species in Collection

FPNMH: ~~129 2/3~~ ²⁸⁹

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. S-46-303 Sta. No. _____

State or Country: Rongelap Atoll at Yugui Island

County: _____ City: _____

Locality: _____

Drainage: _____ Date: 30 July 1946

Water: _____

Vegetation: _____

Time: 1930-2100

Bottom: _____

Shore: 1/2 mile Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: surface Depth of water: 13 fathoms

Method of capture: dipnets

Collected by: E.S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

EM wielding nets: Stanley and Novac

The following fishes were collected:

- 354 Dussumerids (small)
- 418 small juv fishes, species undet in field
- 1 goatfish (barbels very short)
- 2 needlefishes
- 1 Snake eel
- 1 Brotulid (pectorals under chin and very long)
- 1 Octopus
- 1 Halfbeak

778 Total fishes

~~129 2/3~~ fishes per net man hour
289

Area: 125 x 60 yds (7500)
Poison: 20 lbs cube
Index: 876/7500: .116

FIELD DATA RECORD

POISON

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-304 Sta. No. _____

State or Country: Rongelap Atoll at Yugui Island

County: _____ City: _____

Locality: West side of island

Drainage: ocean reef Date: Thurs 31 July 1946

Water: very clear (next to small boat passage)

Vegetation: _____

Time: 1100-1500

Bottom: many corals with narrow sandy channels between strong at high

Shore: _____ Current: tide-but none at

Distance from shore: _____ Tide: low tide

Depth of capture: _____ Depth of water: 0-15 feet

Method of capture: perzon--20 lbs cube

Collected by: E.S. Herald and 5 EM

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- 6 Chaetodon citrinellus
- 1 " quadrinaculatus
- 2 " monomaculatus unimaculatus
- 19 Paracirrhites arcatus
- 52 Common Brown Serranids
- 2 Naso veliferum
- 1 Acanthurus achilles
- 109 Acanthurus 2-spot
- 3 Ctenochaetus strigosus
- 1 Naso sp (juv)
- 1 Trunkfish
- 1 Platucephalid
- 16 Lizard Fish
- 17 Centropyge flavissimus
- 3 Yellow Goatfish
- 4 Barred Goatfish
- 2 Parrct fishes
- 4 Corythoichthys fasciatus
- 1 Doryrhamphus melanopleura
- 40 Pseudochromids
- 8 Brotulids
- 6 Plesiops nigricans
- 12 Scaled Blennies
- 8 Scaleless Blennies (7 species)
- 56 Gobies (3 species: 19-20-17)
- 11 Caracanthids (2 species: 6,5)
- 23 Apogonids (4 species: 14-6--2-1)

Specimens collected (continued from front side)

- 6 Miscellaneous fishes (1-species)
 - 2 Serranids (2 species)
 - 19 Holocentrids (4 species)
 - 16 Scorpionids (3 species)
 - 141 Labrids (16 species: 10-14-4-1-3-4-15-22-9-1-3-39
-1-4-3-8)
 - 6 Flatfishes (2 species)
 - 113 Damsel Fishes (6 species: 76-15-10-2-2-8)
 - 119 Eels (6 species)
 - 6 Trigger-file fishes (3 species)
 - 4 Puffers (2 species)
 - 38 Parapercids (2 species)
- Alos 4 Octopusuls
1 Scuid

879 TOTAL FISHES COLLECTED

86 TOTAL FISH SPECIES COLLECTED

FPNMH: 66 1/3

FIELD DATA RECORD

LIGHT

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-46-305 Sta. No. _____

State or Country: Rongelap Atoll at Lomuilal Island

County: Lagoon Side City: _____

Locality: _____

Drainage: _____ Date: 31 July 1946

Water: _____

Vegetation: _____

Time: 1930-2100

Bottom: _____

Shore: _____ Current: slight

Distance from shore: 1/2 mile Tide: _____

Depth of capture: surface light Depth of water: 13 fathoms

Method of capture: dinnets at surface

Collected by: H.S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Seamen wiolding nets: Swisher and Selzer

specimens collected:

11 Half-breaks
13 Atherinids
175 Small (Gussumerids?)

199 Total fishes

66 1/3 fishes per net man hour

One net lost: although Swisher denies knowing anything about it---he was observed to accidentally kick it from the overboard stove.

Area: 25 x 75 yards
Poison: 10 lbs Cube

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

INDEX: 482/1875-257

Acc. No. _____ Tag No. S-46-306 Sta. No. _____

State or Country: Rongelap Atoll at Lomuila Island

County: _____ City: _____

Locality: West Side of Lomuila Island

Lagoon Reef

Drainage: _____ Date: Friday 1 August '46

Water: very clear

Vegetation: _____

Time: 1100-1330

Bottom: Scattered corals strong at high but

Shore: _____ Current: absent at low tide

Distance from shore: _____ Tide: _____

Depth of capture: 0-10 feet Depth of water: 0-10 feet

Method of capture: pizon and dipnets

Collected by: E.S. Smerald and 5 EM

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- 1 Platycephalid
- 16 Centropyge flavissimus Also
- 1 Chaetodon unimaculatus 1 Octopusul
- 24 Dascyllus 3-stripe
- 28 Ctenochaetus strigosus
- 59 Acanthurus 2-spot
- 1 Naso sp (juv)
- 40 Epinephalus (common brown spotted species,
- 2 Paracirrhitis arcatus
- 1 Aulostomid
- 3 Chromis coeruleus
- 4 Puffers
- 3 fishes, species unknown
- 15 Pseudochromids
- 1 Brotulid
- 1 Plesiops nigricans (very small)
- 5 Gobies (2 species: 4-1)
- 4 Scorpion fishes (2 species: 1-3)
- 2 File fishes (2 species)
- 27 Apogonids (6 species: 4-7-4-3-8-1)
- 31 Eels (3 species)
- 5 Parapercids (2 species)
- 13 Synodontids (2 species)
- 20 Goatfish s (2 species: 18-2)
- 20 Holocentrids (4 species: 16-2-1-1)
- 68 Pomacentrids (4 species: 21-26-10-11)

OVER

Species Tally continued from from side:

27 Parrot fishes (3 species: 6-20-1) -1)
60 Labrids (16 species: 12-12-5-3-5-7-4-2-1-3-1-1-1-1-1-1)

482 Total Fishes Collected

64 Total Species represented in collection

FIELD DATA RECORD

DEEP POISON

Division of Fishes

U. S. National Museum

S-46-307

Acc. No. _____ Tag No. ~~S-1000~~ Sta. No. _____

State or Country: Bikini Atoll at Amen Island

County: _____ City: _____

Locality: Station located $\frac{1}{4}$ mile from shore in 30 feet
of water (lagoon)

Drainage: _____ Date: 4 Aug 1946 (Sun)

Water: _____

Vegetation: _____

Time: 1300-1500

Bottom: sandy, moss common with occas. coral heads

Shore: _____ Current: very slight

Distance from shore: 440 yards Tide: _____

Depth of capture: 0-30 feet Depth of water: 30 feet

Method of capture: 15 lbs of cube root (3 water bags)

Collected by: V.E. Brock, E.S. Herald and T. Kohler

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Donaldson, Bradner and ^{auwahi} Pottski along on trip to act as monitors---corals, herbivorous fishes and algae all hot with approximately 8 hour tolerance. Formaldehyde absorbs the radioactivity so that all pickle solutions will be changed several times as an SOP.

The following specimens were collected:

- 16 Apogon (7 line)
- 10 " (5 line)
- 13 " (eye-line and tail spot)
- 90 " (orange yellow with tail bar)
- 1 " (yellow overall with white stripes)
- 1 " (with tail bar more on dorsal side of caudal peduncle and not extending completely down to ventral surface).
- 10 goatfisses (common yellow stripe)
- 12 Chromids (blue overall with yellow tail and black opercular spot)
- 22 Chromids (overall blue)
- 45 Porgys (common species with white spot on back at the end of the dorsal fin; 44 small specimens and 1 large)
- 5 Ctenochaetus strigosus
- 2 Platycephalids, small
- 7 Gomphosus varius

- 10 Myripristis sp.
- 2 Paraperoids (broad-headed--narrow mouthed species)
- 4 Lizard fishes
- 1 Priacanthids
- 8 Pomacentrids (small blue spots thereon--HOTERNHELL)
- 3 Pomacentrids (yellow belly with black ocellus in dorsal with blue border)
- 1 " (yellow top of head and back; breast black, and with same ocellus)
- 1 Abudefduf (orange with two vertical stripes)
- 1 Chaetodon citrinellus
- 1 " lunula
- 1 Micrognathus (many dermal papillae)
- 1 Pseudochromid (brown with dark operc spot)
- 2 Blennies (scaled)
- 1 Petroscirtes (blue striped commensal form)
- 3 Scorpaenids
- 1 Paracirrhites arcatus (common eye-line species)
- 3 Epinephalus leopardus
- 1 " (grey spotted with peduncle saddle)
- 1 Seriola lauta
- 3 Siganus (spotted species)
- 1 Snapper (red opercular spot)
- 1 " (reddish)
- 2 " (2 back spots of white)
- 3 Cheilinus (2 species)
- 13 Labrids (8 different species)
- 2 Parrot fishes (2 species)
- 5 Holocentrus (4 species)
- 21 eels (7 different species)
- 6 gobies (2 different species)
- 4 Emmylichthids (2 different species)

Also 1 of
Utranchella
whitappina

341 Total Specimens

63 Total Species

25 lbs derris
4 canvas bags of
5 gals each

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

DEEP POISON
and
SPEAR

Acc. No. _____ Tag No. S-46-308 Sta. No. 308

State or Country: Alor Tags Nos. 309 through S-46-324

County: _____ City: (total 17)

Locality: Isolated Coral ~~Head~~ ^{Area} 100 yds offshore of

Airukijji (Arji) Island; Bikini Atoll ^{Lagoon Side}

Drainage: _____ Date: Wed 7 August 1946

Water: Some suspended sand particles

Vegetation: _____

Time: 1100-1500

Bottom: Very sandy with occas. coral heads

Shore: _____ Current: 1 mph

Distance from shore: _____ Tide: _____

Depth of capture: surface to 40 feet Depth of water: 20-40 feet

Method of capture: pizon and dp nets also Donaldson

Collected by: V.E. Brock and E.S. Herald Welanders, Potski

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following fishes were photographed:

- S-46-309: Acanthurus ^{lycutimon} ~~sp.~~ (110 mm) ... ABCR 139-1035-7
- " 310: Blue Parrot Fish (150 mm) ... ABCR 139-1035-8
- " 311: Holocentrus (red dorsal; no stripes) (280 mm)
- " 312: Cebrasomus ~~epinephalus~~ (orange with blue spots; long jaw (225 mm) ... ABCR 139-1035-5
- " 313: Balistid (185mm; bit VEB) ... ABCR 139-1035-6
- " 314: Epinephalus (brown overall with orange spots; 220 mm) ... ABCR 139-1035-9
- " 315: Heniochus ^{permutatus} ~~aeminatus~~ (110 mm) ABCR 139-1035-10
- " 316: Forcipiger longirostris (100mm) ABCR-139-1033-1
- " 317: Chaetodon trifasciatus (80 mm) ABCR-139-1033-2,3,4
- " 318: Holotrachys lima (68 mm) ... } ABCR-139-1033-5,6
- " 319: Pylogytes diacanthus (65mm) ... }
- " 320: Brotulid (orange) (80 mm) ... }
- " 321: Labrid (65 mm) ... } ABCR-139-1033-7,8
- " 322: Apogonid (50 mm) ... }
- " 323: Holocanthus imperator (265mm) ABCR-139-1033-9,10
- " 324: Dunckerocampus dactylophorus (125 mm) ... ABCR-139-1036-1,2

22
pictures
TOTAL

The following fishes were collected:

- 2 Platycephalids
- 1 Antennariid
- 37 Dascyllus 3-stripe
- 6 " 2-stripe
- 2 Chaetodon trifasciatus
- 14 Centropyge flavissimus (?) (these may be different)
- 1 " bispinosus
- 3 Pseudochromids (ear spot type)
- 1 Pleuronectid (very small---ie 10 mm or therabouts)
- 50 Apogon 7-stripe
- 96 " 5-stripe
- 214 " (three different species)
- 4 Acanthurus n. sp. (same as that photographed)
- 21 Ctenochaetus strigosus
- 5 Acanthurus 2-spot
- 2 Zebrasoma flavescens (dark color phase)
- 9 Corythoichthys fasciatus (males with eggs)
- 3 " conspicillatus " ")
- 3 Dunckerocampus dactylophorus
- 1 Caracanthid
- 8 Monotaxus grandoculis (small)
- 6 Brotulids (orange)
- 1 Pseudochromid sp.
- 8 Scaleless Blennies
- 1 Eleotrid with black second dorsal and anal as illustrated on backside of S-46-246; a large school in the area, but this was the only one collected)
- 24 Chromis coerulea
- 53 " similar to coerulea but with blk band along dorsal and ventral surfaces of tail fin.
- 37 Eels (5 or more species)
- 48 Serranids (7 different species)
- 15 lizard fishes (2 species)
- 4 file fishes (2 species)
- 17 goat fishes (5 species)
- 2 Parapercids (2 species)
- 2 Scorpaenids (2 species)
- 59 Holocentrids: (6 species)
 - 19,6,1,1 Holocentrus
 - 3 Holotrachys
 - 29 Myripristis
- 37 Labrids (14 species including 6 specimens of Wetmorella)
- 38 Gobies (including a specimen of the Skunk Fish) (6 species)
- 13 Parrot Fishes (3 different species)
- 45 Pomacentrids (7 different species)
- 3 Paracirrhites arcuatus

860 TOTAL SPECIMENS COLLECTED (including those photographed)

96 TOTAL SPECIES

This station was important in that for the first time a boat functioned on the surface at the time of the poisoning---250 fishes collected in that manner

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

FISH TRAP

Acc. No. _____ Tag No. S-46-325 & Sta. No. _____
State or Country: 326, 327, 328, 329, and 330
County: _____ City: _____
Locality: Fish trap in 18 feet of water, coral area,
100 yards south of south tip of Enyu Id., Bikini Atol
Drainage: (Channel) Date: 6 August 1946
Water: _____
Vegetation: _____
Time: _____
Bottom: corals and sandy
Shore: _____ Current: _____
Distance from shore: 100 yards Tide: _____
Depth of capture: 18 feet Depth of water: 18 feet
Method of capture: fish trap
Collected by: V.E. Brock and T. Kohler
Preservative: Formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

- S-46-325: Bup-headed Parrot fish (420 mm)
S-46-326: Hump backed snapper with lobbed caudal
(310 mm)
S-46-327: Holocentrus (305 mm) *spinifer*
S-46-328: Brown Epinephalus (300 mm)
S-46-329: Porcupine fish (295 mm) this was not in
the trap but was floating within $\frac{1}{2}$ mile
of the trap---along inside of Enyu Id.
S-46-330: Brown Epinephalus (200 mm) overall light
brown in color with darker brown spots
and each spot circled with a band of
orange. N. Sp?

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

450
Hook and Line

Acc. No. _____ Tag No. S-46-331 Sta. No. _____

State or Country: Rongelap Atoll

County: _____ City: _____

Locality: In the lagoon, almost directly off the village on Rongelap Island

Drainage: _____ Date: 25 July 1946

Water: _____

Vegetation: _____

Time: 1000--2400

Bottom: _____

Shore: _____ Current: _____

Distance from shore: 1/2 mile Tide: _____

Depth of capture: Bot tom (10 fmas) Depth of water: 10 fathoms

Method of capture: Hook and Line (hand line)

Collected by: T. Kohler

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

3 Priacanthids (200 mm)

5 Blue-lined yellow snappers (180 mm) probably
Lutianus viridis *basemira*

~~Get the data on the above specimens from V. Brock or T. Kohler.~~ Data OK as above. (ESN)

Area: 50 yds x 150 yds
Cube: 25 lbs
INDEX: 960/7500:: .128

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. _____ Tag No. S-46-332 Sta. No. _____
State or Country: Bikini Atoll at NW Section of Reer Id.
County: _____ City: _____
Locality: Lagoon Reef
Drainage: _____ Date: Mon 12 Aug 1946
Water: _____
Vegetation: _____
Time: 0900-1300
Bottom: _____
Shore: _____ Current: 1 mph
Distance from shore: _____ Tide: low tide station
Depth of capture: surface to 10 ft Depth of water: _____
Method of capture: pizon (25 lbs) and dipnets
Collected by: E.S. Herald, V.E. Brock and 4 EM
Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:
Inasmuch as the shore was very rocky with some tide pools, one man was assigned to poison these ponds, hence blenny count is higher than ordinarily. The following fishes were collected:

- 3 Chaetodon citrinellus
- 5 Centropyge flavissimus
- 16 Paracirrhites arcatus
- 2 Flatfish
- 7 Balistes rectangularis
- 1 Doryrhamphus melanopleura
- 2 Platycephalids
- 1 Synodontid
- 2 Chromis coeruleus Also
- 5 Dussumerids 5 Octopusals
- 7 Kuhlids
- 7 Atherinids
- 1 Halfbeak
- 21 Brotulids
- 18 Siganids (juv)
- 5 Acanthurus achilles
- 2 " yel fin base
- 53 " triostegus
- 91 " 2-spot
- 11 Ctenochaetus strigosus
- 1 Naso unicornis
- 9 Parrot Fishes
- 15 Abudefduf abdominalis OVER

- 3 Dascyllus 3-stripe
2 Fish unknown
17 Pseudochromids
2 Caracanthids
7 Scorpionids (2 species)
33 Gobies (3 species)
243 Blennies (5 or more species)
13 Cheek Stripe Blennies
34 Goatfishes (4 species: 16-16-1-1)
61 Serranids (6 species: 5-4-47-1-3-1)
17 Holocentrids (4 species: 8-6-2-1)
4 puffers (2 species)
5 File Fishes (2 species)
4 Parapercids (2 species)
14 Apogonids (2 species)
57 Labrids (9 species)
26 Mullet (2 species: 25-1)
67 Eels (15 species including an Echidna zebra)
66 Pomacentrids (5 species)
-

91 Total Species Collected

960 Total Number of Specimens in Collection

Area: 50 x 150 yds
Cube: 25 lbs
INDEX: 932/7510 = .110

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. _____ Tag No. S-46-333 Also Sta. No. _____

State or Country: Nos 334 through 348 (1 plus 15 nos)

County: _____ City: _____

Locality: Bikini Atoll; SE End of Enyu Id; outer reef

Drainage: _____ Date: Tues 13 Aug 1946

Water: _____

Vegetation: _____

Time: 0900-1300

Bottom: _____

Shore: _____ Current: _____

Distance from shore: reef narrow--50 yds Tide: _____

Depth of capture: _____ Depth of water: 18" maximum

Method of capture: poison (25 lbs) and dipnets

Collected by: E.S. Herald, Monitor and 5 EM

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

This proved to be one of the most interesting stations yet run---average depth of the water along the 300 yards of reefline poisoned was 6 inches with very shallow coral growths sporadically distributed---the maximum depth was 18 inches. When first checked, the area did not seem to have too prolific of a fish population, but we really hit the jackpot as a result of the use of the cube. We only picked up fishes for two hours, and inside of $\frac{1}{2}$ hour after beginning with the nets, we had the 16 gallon container filled. We threw away 88 goatfish (common yellow-stripe) and 82 Surgeon fishes (mostly A. 2-spot but with some Ctenochaetus strigosus mixed in.

Went in over the reef with the wherry---and nearly capsized---the boat finally coming to rest, right side up on top of a high Lithothamnion ridge. Put two men in the boat with the equipment---and the others swam in to the reef from the sound boat--- nearly lost one man---Abarno---who was hit with a wave and knocked against a coral head---and then lost his head---screaming for HELP, and all that sort of rot---finally pulled him but---scratched up quite a bit.

OVER

The following fishes were photographed:

film no
? 1065

- S-46-334: Acanthurus guttatus (165 mm)
- " 335: Parrot fish with caudal peduncle spot (150 mm)
- " 336: Balistes rectangularis (160 mm)
- " 337: Balistes aculeatus (150 mm).
- " 338: Labrid (205 mm)
- " 339: Enchelynassa canina (ca 720 mm)
- " 340: Chaetodon lunula (?) (110 mm)
- " 341: Holocentrus (blk spot dorsal; 160 mm)
- " 342: Labrid, brown (175 mm)
- " 343: Pleuronectid (200 mm)
- " 344: Chaetodon quadrimaculatus (105 mm)
- " 345: Chaetodon reticulatus (115 mm)
- " 346: Abudefduf ^{jordanus} ~~abdominalis~~ (115 mm)
- " 347: Gymnothorax picta (ca 650 mm)
- " 348: Naso unicornis (?) (135 mm)
(itacarus)

ESH believes that there were many more fishes in the area than were picked up - but no opportunity to check because of having to work with photographer. The high number of labrids is worthy of note.

The above fishes were lost from the string on which they had been placed in order, so that the above order does not necessarily follow that of the photos.

The following fishes were collected: (in addition to those photographed)

- | | |
|---------------------------------------------------------|--------------------------------|
| 18 Parapercids | |
| 14 <u>Balistes rectangularis</u> | |
| 4 <u>Balistes aculeatus</u> | |
| 4 Chaetodonts (3 <u>unimac</u> & 1 <u>reticulatus</u>) | |
| 10 Holocentrids (2 species: 9-1) | |
| 6 Pleuronectids | |
| 6 Eels (5 species) | |
| 4 puffers (2 species: 1-3) | 74 Serranids |
| 2 Common Siganids (large) | (3sp: 6-2-66) |
| 53 Chromids (yellow tails) | 15 fishes photographed |
| 2 Apogonids (5 stripe) | (4 addit. species) |
| 1 Cirrhitid (species uncommon) | |
| 2 Caracanthids | |
| 10 Pomacentrids (4 species) | 781 Total Preserved Fishes |
| 1 <u>Abudefduf abdominalis</u> | |
| 41 Chromids-like (bluish-grey) | 201 Total Discarded |
| 175 Labrids (6 or more species) | 170 |
| 97 <u>Acanthurus</u> 2-spot | 932 Total Collection |
| 5 <u>Acanthurus achilles</u> | |
| 1 <u>Naso unicornis</u> | 51 Total Species in Collection |
| 60 <u>Acanthurus triostegus</u> | |
| 19 Parrot fishes (2 species: 16-3) | |
| 100 Blennies (3 species) | |
| 1 Scorpionid | |
| 37 Goatfishes (2 species: 3-34) | |

The collection is not well preserved due to the necessity of carrying the fish for 2 miles in hot sun - minus preservative.

Area: 50 x 50 yds
Poison: 25 lbs cube
INDEX: 561/2500:: .224

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. ----- Tag No. S-46-349 AND Sta. No. 349
State or Country: S-46-350 through S-46-360 (1 plus 11)
County: ----- City: -----
Locality: Outer reef near NW tip of Bikini ID.,
Bikini Atoll (directly out from CB sand-covered hut)
Drainage: ----- Date: Wed 14 Aug 1946
Water: A pool encircled by coral, size 50 x 50 yds
and 5 feet deep
Vegetation: -----
Time: 1030-1330
Bottom: Sand
Shore: 1/2 mile out on reef Current: none at low tide
Distance from shore: ----- Tide: -----
Depth of capture: 25 lbs Cube Depth of water: 5 feet
Method of capture: perzon and dipnets
Collected by: E.S. Herald, monitor and 5 MM
Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

By contrast with the station run yesterday which was the same type habitat as found over most of the outer Bikini reef---very few fishes were observed on the outer Bikini reef. Walked from a point roughly 1/2 mile east of station S-46-253, east along the Lithothamnion ridge and found absolutely nothing in areas which shallow water and much abundant coral that should have been teeming with small fishes---checked the outer reef beyond the surge channels and found it to be fairly normal. During the course of the above reconnaissance, 3/4 mile of shoreline was covered---and only one pool was observed that was at all comparable with the same habitat of yesterday at Enyu (S-46-333). At this point came towards the shore from the L. ridge and about 1/3 mile from the ridge towards the shore, discovered many sandy areas about 6 feet deep and shallower, some of which had fishes, but not in great abundance---the one exception in numbers of fishes in this area was the enclosed-by-coral sandy area in which this station was run---and it was simply lousy with fishes---most interesting was the fact that there was a large school of several hundred Fistularia in the pool---and in contrast with the the few needlefish which were swimming at the surface---they were all at the bottom---and were very sluggish---reminding one of the Florida Gars in the Springs of that state.

OVER

The following fishes were photographed: (total 11)

S-46-350:	Common Blue Parrot (250mm);	ABCRL39-1066-1,2
" 351:	<u>Monotaxus grandicollis</u> (220mm)	" " " -3,4
" 352:	<u>Holocentrus</u> sp. <i>opercularis</i> (210 mm);	" " " -5,6
" 353:	Parrotfish, orange head (170mm)	" " " -7
" 354:	Labrid, $\frac{1}{2}$ & $\frac{1}{2}$ (175 mm)	" " " -8
" 355:	<u>Chaetodon epphipium</u> (130 mm)	" " " -9
" 356:	<u>Chaetodon auriga</u> (140 mm)	" " " -10
" 357:	<u>Synodid</u> , blue lined (130 mm)	" " " -11,12
		" 1067-1
" 358:	Labrid (Hibppofish) (90mm):	" " " -2
" 359:	Puffer (83 mm)	" " " -3,4,5
" 360:	<u>Naso veliferum</u> (70 mm).....!"....."	" " -6

Discarded fishes: 136 Monotaxus grandicollis
13 Fistularia

The following fishes were collected:

- 67 Fistularia (13 discarded-- many more stuck in coral)
- 11 Goatfishes (2 species: 10-1)
- 78 Holocentrids (6 species)
- 20 Apogonids (3 or 4 species)
- 6 Orange Peels (Centropyge)
- 2 Puffers
- 7 Eels (4 species)
- 3 Lizard fishes
- 20 Pomacentrids (2 species: 11-9)
- 2 Pseudochromids
- 2 Aulostomids
- 14 Chaetodonts (5 sp: 2-2-3-3-4)
- 4 Dasyllus 3-stripe
- 21 Chromis coeruleus
- 1 Heniochus acuminatus
- 1 Scorpionid
- 2 Zebrasoma flavescens
- 1 Naso lituratus
- 1 Naso (no tail spine)
- 7 Ctenochaetus strigosus
- 29 Acanthusus 2-spot
- 2 Acanthusus achilles
- 3 Acanthusus triostegus
- 5 Zanclus coronatus
- 22 Labrids (13 species: 4-2-5-2-1-1-1-1-1-1-1-1-1)
- 10 Monotaxus grandicollis (136 discarded) individually
- 8 Epinephalus (common type)
- 52 Parrot fishes (possibly 3 species)
- 11 Photographed --tin tagged as above
- 412 Total Fishes preserved (including 11 Photographed)
- 149 Total Fishes discarded
- 561 Total Specimens
- 59 Total Species in Collection

This is another station where it is believed that much material was not collected - ESTH had to work on the beach with the photographer for most of the 3 hour collecting period.

Also note Enyu eels S-46-333 = 8 eels

Note the low eel count---only 7 specimens---and the previous collection (S-46-253) in this area was equally low---only 4 specimens. Check on Schultz collections for this area (S-46-15 & 120)

Area: 75 x 100 yds

FIELD DATA RECORD

POISON

Cube: 25 lbs

Division of Fishes

INDEX: 194/1500 = .025

U. S. National Museum

Acc. No. ----- Tag No. S-46-361 and Sta. No. 361
 State or Country: S-46-362 through S-46-381 (1 plus 20 nos
 County: ----- City: -----
 Locality: Bikini Atoll; Outer reef of Chieereete Id
(conde: Cherry) approx bet stas. S-46-98 and 99
 Drainage: ----- Date: Thurs 15 Aug 1946
 Water: -----
 Vegetation: many coral heads; low broken Lithothamnion
ridge Time: 1100-1500
 Bottom: -----
 Shore: ----- Current: strong; much surge
 Distance from shore: ----- Tide: just turned as pois
on was being distribut
 Depth of capture: surface to 10 ft. Depth of water: -----
 Method of capture: perzon and dipnets
 Collected by: E.S. Herald plus monitor plus 6 EM
 Preservative: formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

The roct was put into the water at a depth of 6 feet (ie bottom of 6 feet) and was from there carried into the shore---many fishes were killed but the breakers were a bit rough, and as ESH had to work with the photographer---no amount of persuasion could get the EM out into the area where the fishes were---consequently the catch is not particularly rich in the number of species of specimens collected---however the series of pictures taken during the day may be sufficient to redeem this station.

The monitor's Geiger counter gave readings of .2 and .3 of a MR (milliroentgen) for the fishes and some of the coral and such in the area---however this is much below tolerance.

The following fishes were photographed:

S-46-362:	Siganid (245 mm).....	ABCR139-1067-7	
" 363:	Parapercid (105 mm).....	" "	-8,9
" 364:	Parapercid (110 mm).....	" "	-
" 365:	Mullid (140 mm).....	" "	-10
" 366:	Cheilinus (?) (120 mm).....	" "	-11
" 367:	Labrid (100 mm).....	" "	-12
" 368:	Zanclus coronatus (115 mm)....	" 1068	-1,2
" 369:	Chaetodon ephippium (125 mm) ..	" "	-3,4
" 370:	Naso lituratus (135 mm).....	" "	-5,6
" 371:	Acanthurus achilles (115 mm) ..	" "	-7,8
" 372:	Acanthurus yel tail bar (95mm)	" "	-9,10

over

This station was originally planned for Rukoji Id., (Code: Ruji) but it was found that the current was too strong along the SW end of the island to run a poison station, consequently, the possibilities of Cherry were investigated.

S-46-373:	<u>Centropyge flavissimus</u> (67mm)	ABCR139-1068-11, 12
" 374:	" " (55mm)	& 1069-1, 2
" 375:	Yellow Goat Fish (90 mm)ABCR139-1069-3, 4
" 376:	Platycephalid (125 mm) " " -5, 6
" 377:	<u>Gomphosus</u> various (120 mm)	... " " -7, 8
" 378:	Blenny, very fat (90 mm) " " -9
" 379:	Pomacentrus (com-blk; 85mm)	... " " -10
" 380:	Scorpionid (65 mm) " " -11
" 381:	Labrid (97 mm) <i>Masiphysa</i> <i>parvialis</i>	" " -12

Total of 20 fishes and 30 photos

The following fishes were collected:

- 7 Ctenochaetus strigosus
- 56 Acanthurus 2-spot
- 2 Holocentrus
- 1 Synodid
- 1 Epinephalus
- 1 Serranid, small striped
- 4 Chromis coeurulus
- 3 Apogon
- 5 Centropyge flavissimus
- 1 Eel
- 1 Brotulid
- 10 Labrids (5 species)
- 42 Blennies (3 species)
- 23 Parrot Fishes (2 species: 1-22)
- 9* Pomacentrids (2 species)
- 3 Goatfishes (2 species)
- 5 Chaetodonts (2 species: 4-1)
- 20 Specimens photographed (8 species not listed herein)

194 Total Specimens Collected

35 Total Species in Collection

It should again be emphasized that this collection definitely does not constitute an adequate sample of the fish population in the area---for from observation, fishes were fairly abundant.

Area: 75 x 75 yds

Cube: 25 lbs

Index: 857/5525:: .155 U. S. National Museum

FIELD DATA RECORD

POISON

Division of Fishes

Acc. No. ----- Tag No. S-46-382 Sta. No. 382

State or Country: Bikini Atoll

County: ----- City: -----

Locality: Ourukaen Island (Code Name: Oruk) Outside reef
(reef on SW side of island)

Drainage: ----- Date: Fri 16 August 1946

Water: clear

Vegetation: numerous coral heads with paths between

Time: 1100-1430

Bottom: -----

Shore: ----- Current: surging breakers

Distance from shore: ----- Tide: -----

Depth of capture: ----- Depth of water: -----

Method of capture: pizon and dipnets

Collected by: E. S. Herald, Monitor and 5 EM

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

Went around South end of island to the SW side on the outer reef where the station was run. The south end of the island was covered with oil and heavy gummy tar which gave a reading on the Geiger counter which was as high as the instrument would read---ie on the 20 scale---ie the reading was .16 roentgen units per 24 hours (highest reading possible on meter which is over tolerance (tolerance being given as .1 (or 1/10) roentgen Units per 24 hours). Consequently this area on the south side of the island was avoided and some 1/3 of a mile to the west of this contaminated area was found another area which was typical flat outside reef with low growing corals---it gave a reading of .2 MR (milleroentgen units) per 24 hours, which was below tolerance---so this area was worked. It should be noted that the readings on the fishes varied from .1 MR to .5 MR---this latter reading being obtained when the counter was put down inside of the 16 gal tank and within two inches of the formalin solution. It was found that with the same species of fish, the reading would be different, ie higher, if his gut was cut open and the radio-active algae within the guts exposed to closer proximity of the counter. The question is raised as to whether these fishes have received enough radioactivity, either through food or through their presence adjacent to a contaminated area so that they will succumb within the next few months.

Discarded specimens: 76 of Acanthurus 2-spot and
31 of Acanthurus triostegus

The following fishes were collected:

4 Flatfish	Also
7 <u>Balistes rectangularis</u>	
10 File fish	4 Octopusals
8 Siganids (small)	
12 Chaetodonts (5 species: 5-1-3-1-2)	
4 goatfishes (2 species: 3-1)	
50 Serranids (3 species: 48-1-1)	
6 Parapercids	
1 Platycephalid	
116 Blennies (probably 4 species)	
240 Labrids (5 species: 23-11-1-199-6)	
14 Parrot fishes (2 species: 4-10)	
45 <u>Acanthurus triostegus</u> (note discard above)	
7 <u>Naso lituratus</u>	
7 <u>Acanthurus achilles</u>	
3 <u>Acanthurus olivaceus</u> NOTE	
1 <u>Acanthurus guttatus</u>	
64 <u>Acanthurus 2-spot</u> (note discard above)	
3 <u>Ctenochaetus strigosus</u>	
39 Pomacentrids (probably 3 species)	
39 Eels (4 species)	
5 <u>Paracirrhites arcatus</u>	
20 Caracanthids (may be wrong)	
5 Gobies (this may not be correct)	
3 <u>Plesiops nigricans</u>	
1 <u>Fistularid</u>	
3 Halfbeaks	
26 Scorpionids (3 species)	
7 misc fishes (4 species)	

750 Total Fishes Preserved

~~107~~ Total Fishes Discarded

857 Total Fishes Collected

~~54~~ Total Species Represented in Collection

Area: 75 x 100 yds
Cube: 25 lbs
INDEX: $981/7500 = .130$

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

POISON

Acc. No. _____ Tag No. S-46-383 Sta. No. _____

State or Country: Outside reef of North End of Bokobyaadaa

County: Island (Code: Boby) City: Bikini Atoll

Locality: This sta was located next to the island on the north side just before the sand spit curves out leading to Bokonejien Island to the north.

Drainage: _____ Date: Sat 17 Aug 1946

Water: _____

Vegetation: _____

Time: 1100-1445

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____ mostly under

Depth of capture: surface to 8 feet Depth of water: 5 feet

Method of capture: pizon and dip nets

Collected by: E.S. Herald, monitor and 5 EM

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

No sign of oil contamination along outer reef, although there was much along the inner reef---no indication from the Geiger meter of contamination along outside up to the time it stopped working due to its being ungently dropped.

The following fishes were collected:

- 35 Eels (8 species: 10-1-1-4-1-6-2-10)
- 92 Blennies (4 species)
- 29 Acanthurus triostegus (incl 11 very small indiv.)
- 9 Chaetodonts (5 species)
- 3 Zanclus coronatus
- 18 Lizard Fishes
- 2 Parapercids (2 species)
- 4 Lemon peels (Centropyge)
- 3 Pleuronectids
- 63 Dascyllus 3-stripe
- 16 Chromis coeruleus
- 3 Puffers (2 species)
- 11 Holocentrids (4 species: 4-4-2-1)
- 36 Pomacentrids (5 species)
- 48 Parrot Fishes (4 species)
- 31 Goatfishes (3 species: 1-5-25) discarded 85 Yel & Observed 115 more

OVER

NOTE: On the day following this collection, the monitor, Lt Comdr. Jack Emmett returned to Boby Island with another meter (with Dr. Morrison) and found that some readings were as high as 55MR, but in general most of the area was quite cold.

Collection List (continued from front side)

- 6 Pseudochromids
- 4 Chromids
- 48 Mullet
- 48 Apogon (3 species)
- 3 Monotaxus grandicolis
- 5 Amphiprion
- 6 Ctenochaetus strigosus
- 4 Naso lituratus
- 7 Acanthurus 2-spot
- 1 Zebrasoma flavessens
- 2 Scorpionids
- 140 Labrids (12 species: 19-93-4-1-5-1-6-6-2-2-1-2)
- 1 Trigger fish
- 1 Trunk Fish
- 13 Kuhlids (2 species: 3-10)
- 1 Aulostomid
- 11 Gobies (3 species)
- 1 ANTENNARID (10 mm)
- 2 Caracanthids
- 64 Epinephelus (2 species: 63-1)

ALSO

Two Octopusals

771 Total Fishes Preserved

95 Total Fishes Discarded

115 Total Dead Fishes Observed but not Collected

981 Total Available Collection

79 Total Species Represented

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

HOOK and Line

Acc. No. _____ Tag No. S-46-384 Sta. No. _____
State or Country: Boku Pass about 200 yards off Oruk Id.,
County: _____ City: _____
Locality: Bikini Atoll

Drainage: _____ Date: 12 August 1946
Water: _____
Vegetation: _____

Time: 1200
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: 9-10 fathoms Depth of water: 11 fathoms
Method of capture: Hook and Line
Collected by: Yeoman 1/C McChesney
Preservative: formalin Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____
S-46-384: Naso eoume, 400 mm Stand Length

This specimen was one of four which were caught on hook and line, using bacon (?)---the fish were said to have hit the line with great force. The other three specimens spoiled before they could be preserved.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

HOOK & LINE

Acc. No. _____ Tag No. S-46-385-6-7-8 Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: 3/4 mile due east of Rochikarai Island
(code: Rokar), Bikini Atoll (Bowditch Anchorage)

Drainage: _____ Date: Wed 21 Aug 1946

Water: _____

Vegetation: _____

Time: 1600-1700

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: CMN-Norton

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Bait used was boloney, known colloquially to the EM as Horsephallus.

S-46-385: Caranx (400 mm)

S-46-386: Caranx (450 mm)

S-46-387: Caranx (390 mm)

S-46-388: Caranx (390 mm)

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

SPEARAcc. No. _____ Tag No. S-46-389 Sta. No. _____State or Country: Rongelap Atoll

County: _____ City: _____

Locality: Lagoon Side of Raongelap Island, Rongelap Atoll.Drainage: _____ Date: 21 July 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: mostly sand with a few coral heads

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: 10-20 ftMethod of capture: Sling SpearCollected by: V.E. BrockPreservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

1 Trunk Fish (190 mm)

1 Trigger Fish (185 mm)

25 lbs cube
5 canvas bags

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

DEEP POISON
and
SPEAR

Acc. No. _____ Tag No. S-46-³⁹⁰~~331~~ Sta. No. _____

State or Country: Bikini Atoll

County: _____ City: _____

Locality: One mile southeast of Namu Island in 30-45 feet of water

Drainage: Ocean like lagoon reef Date: 9 Aug 1946 Fri.

Water: very clear

Vegetation: _____

Time: _____

Bottom: large coral area---irregular

Shore: 1/2 mile south of reef Current: _____

Distance from shore: 1 mile to Namu Tide: _____

Depth of capture: 30-45 feet Depth of water: same

Method of capture: pizon, dipnets and spear

Collected by: V. E. Brock and E. S. Herald

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

- 1 Caudal Ped Blotch Brown Grouper
- 1 Brown Grouper same as above, but without caud ped blotch.
- 1 Chaetodon monomaculatus
- 2 Priacanthids
- 1 Holocentris
- 11 Myripristis
- 1 Yellow-belly, dorsal ocellus Pomacentris
- 1 Bump headed labrid (speared; this is possible the first time that this species has been taken)

19 Total Specimens

This areas was one of the best that VEB and ESH had observed---specially for larger fishes, but it was also abundant in shark population---5 large individuals were observed at one time circling about VEB (white tip ped and black-tipped grey---ie caudal and 2nd dorsal black on the outer margins, but the first dorsal grey) The sharks were so numerous that all of the cube could not be distributed---ie only 3 bags put out, and the last much later than the others. ESH had the pump go haywire, so had to throw off belt and mask and swim for surface (46 feet). Belt buckle and canvas bag lost. Line was fouled so that ESH could not be pulled in. Later in the afternoon---the pump stopped twice more,

but on each of these occasions, ESH was pulled in without difficulty.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. _____ Tag No. S-46-391 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: Off Rongerik Island in the lagoon, Rongerik Atoll; under light at night

Drainage: _____ Date: 26 April 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: surface Depth of water: _____

Method of capture: dipnet

Collected by: John C. Marr

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

7 Halfbeaks (165--310 mm)

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

LIGHT

Acc. No. ----- Tag No. S-46-392 Sta. No. -----

State or Country: -----

County: ----- City: -----

Locality: Rongerik Lagoon in Rongerik Atoll
under light at night

Drainage: ----- Date: 23 April 1946

Water: -----

Vegetation: -----

----- Time: -----

Bottom: -----

Shore: ----- Current: -----

Distance from shore: ----- Tide: -----

Depth of capture: surface light Depth of water: -----

Method of capture: dipnets

Collected by: John C. Marr

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

6 Halfbeaks (280-300 mm)

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

TROLLING

Acc. No. _____ Tag No. S-46-393 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: Off Rongerik Atoll

Drainage: _____ Date: 25 April 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: trolling

Collected by: John C. Marr

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

One Acanthurus sp. (probably a 2-spot) coughed up
by a Gymnosarda (species spelling is not clear but
looks like under)

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

?

Acc. No. _____ Tag No. S-46-394 Sta. No. _____
State or Country: _____
County: _____ City: _____
Locality: _____
Drainage: _____ Date: _____
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: _____
Collected by: _____
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

Three flying fishes thought to have been brought to the Bowditch by Thomas Kohler just before he left---check with V.E. Brock on data for these specimens---these three specimens (unwrapped) were brought over at the same time as S-46-391-392 and 393 were brought over---the latter of which were wrapped with data.

Lengths of flying fishes: 260, 270 and 280 mm

Jack Marr informs us that these specimens were taken by the commercial fisherman known as "Kris" or Chris - and that the specimens are probably from the Bikini or Rongelap area.

note Labels found in body cavities written by Marr show that ^{the} 2 larger specimens (came from Boek Pass, Rongerik, 27 April and the smaller one from off South side of Bikini Atoll April 16

Apr 8, 1947 hp Woods

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

PLANKTON NET

Acc. No. _____ Tag No. S-36-395 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: 40 CM Net towed from USS LAFPEY at
09° 00' North Lat; 168° 00' East Long.

Drainage: _____ Date: Not given

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 4 ft below surface Depth of water: _____

Method of capture: 40 Cm plankton net

Collected by: BHW (?)

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

1 30 mm pompano-like fish

It is believed that this specimen came from
Dr. Martin Johnson

Orig. Station No: C-39-4476

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

HOOK and LINE

Acc. No. ----- Tag No. S-46-396 Sta. No. -----

State or Country: -----

County: ----- City: -----

Locality: Bikini Atoll at Bowditch Anchorage: 3/4
mile due east of Rochikarai Id.

Drainage: ----- Date: Tues 27 August 1946

Water: -----

Vegetation: -----

----- Time: -----

Bottom: -----

Shore: ----- Current: -----

Distance from shore: ----- Tide: -----

Depth of capture: surface Depth of water: -----

Method of capture: hook and line

Collected by: Chief machinist's Mate Norton

Preservative: Formalin Temp: ----- Air: -----

List of species or kinds, with tag numbers if drawn or discussed: -----

One ⁴⁹⁰ 330 mm *Saracuda*

Area: 100 yds x 75 yds

534 fishes

Poison: 30 lbs Cube

FIELD DATA RECORD

POISON

Division of Fishes

U. S. National Museum

INDEX:

Acc. No. _____ Tag No. S-46-397 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: Kwajalein Atoll at Lagoon reef located near southern end of Enyabagan I.D.

Drainage: Lagoon Reef Date: Sunday, Sept 1946

Water: _____

Vegetation: _____

Bottom: Much dead coral - being used highly placed Time: 1200-1500

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: 1-10 ft

Method of capture: Poison + dipnet

Collected by: F. S. Herre plus 7 assistants

Preservative: Formalin Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

This station was very interesting. The bottom was mostly dead coral - it was well covered with ^{abundant} ~~dead~~ coral. ~~Some~~ ^{Many} ~~fishes~~ ^{species} were fully encountered. I collected in this area for several hours. Species collected include the following in order of importance to the study of the lagoon ecosystem and the effect of poisoning on the fish population and the lagoon ecosystem.

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

401 (4P) 16 June 2009

Acc. No. _____ Tag No. 5-46-402 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: Off South side of Bikini Atoll, flew on board ship at night

Drainage: _____ Date: April 16, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: J. C. Mann

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

1 flying fish. ^{S.L.} $\frac{1}{1}$ 258 mm

Cypselurus spilonotopterus Blkr

25 preserved
25 discarded
50

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-46-402 Sta. No. 5-46-402

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Chilton anchorage about half
mi. off Bikini Island

Drainage: _____ Date: July 13, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: flashlight and ship's lights at night

Collected by: Myers and Schutty & Smith

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

There was a notable absence
of Mullidae and Bursumieridae.
Atherinidae, gobies, snake eel,
halfbeaks, and a pipefish came
to the light.

2 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-403 ^a Sta. No. S-46-403

State or Country: Bikini Atoll

County: _____ City: _____

Locality: Eman Island, lagoon

Drainage: _____ Date: July 16, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: spear

Collected by: Vernon Brock

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

S-46-403 File fish, dorsal, anal and caudal fins brownish yellow; eye yellow; body pale brown, with a yellowish tinge; caudal spine yellow.

S-46-403a - The pearl fish came out of the ~~sea~~ globular starfish, Cyllita novaguinea, about 8 inches in diameter

invertebrates

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. *5-46-404* Sta. No. _____

State or Country: *Bikini Atoll*

County: *Eman Island* City: _____

Locality: _____

Drainage: _____ Date: *July 16-18,*

Water: _____ *1947*

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: *Schultz, Morrison, and Bayer*

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

*Material in this collection mostly from
the land area of Eman Island.*

Discarded 201
Preserved 309
Total 510

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Index ab. ~~164~~ 164
16 fish photographed

Acc. No. _____ Tag No. 546-405-420 Sta. No. 546-405

State or Country: Bikini Atoll

County: Enman Island City: _____

Locality: Western end next to channel reef with only moderate growth

Drainage: of corals and algae Date: July 17, 1947

Water: Area fished about 50 by 100

Vegetation: yards ~~or 10,000 square yards~~
100 yd

Bottom: 50 yd } 12 yd = 3100 sq. yds. Time: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: to 10 feet

Method of capture: Potomone 50 lb.

Collected by: Schutt, Brock, and Myers, and

Preservative: H₂O₂ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

The current was too swift to recover more than a small portion of dead fish - also sharks of 3 kinds came in and fed on the fish. Perhaps the recovery was less than 50%.

The following fishes were photographed in color and tagged:

- 546-405 - yellow streaked surmullet
- 406 - green parrot fish
- 407 - pink striped cirrhitid
- 408 - sand sole
- 409 - green parrot fish
- 410 - brown parrot fish
- 411 - yellow puffer
- 412 - orange streaked butterfly fish
- 413 - wrasse

6254?
5519

#6254

- S-46-414 - Blue striped wrasse *Stethojulis alborivitta*
- S-76-415 - green chromis
- 416 - *Heniochus*
- 6255 - 417 - orange striped wrasse
- 418 - Brown mottled eel
- 419 - *Epibulus*
- S-46-420 - *Cephalopholis*

Name Discarded fishes in circle without "+" marks

mm	+	mm	+	mm	+
101-110	(+1)	21-30		140	
111-120	(32)	31-40		170-11	(+1)
121-130		41-50	(+5)	180-11	(5)
131-140		51-60		210-1	
141-150	(IIII)	61-70	(39)		
151-160	(IIII II)	71-80			
161-170	(IIII II)	81-90	(IIII)		
171-180	(IIII II)	91-100			
181-190		101-110	(III)		
191-200		11-120	(II)		
211-220	(II)	121-130	(II)		
		131-140	(IIII III)		
		141-150	(IIII III)		
		151-160	(IIII I)		
		161-170	(II)		
		171-180	(II)		

① *Morotaxis grandis*
370 mm - (molted)

Acanthurus triostegus

100 -
110
120 - II (8) (+1)
130 - III
140 - I
150

Acanthurus striatus

120 - II
130 - I
140 - I
150 - I
160 - I
170 - I
180 - I
190 - I
200 - I
210 - I
220 - I
230 - I
240 - I
250 - I
260 - I
270 - I
280 - I
290 - I
300 - I
310 - I
320 - I
330 - I
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870 - I
880 - I
890 - I
900 - I
910 - I
920 - I
930 - I
940 - I
950 - I
960 - I
970 - I
980 - I
990 - I
1000 - I

Acanthurus elongatus

70 - III
80 - III III III III
90 - III III III III III
100 - III III
110 - II

(46) (+1)

Black barred surmullet

100 - II
120 - II
130 - I
150 - I
160 - I
170 - I

(9) (+7)

Epinephelus - brown spotted

110 - I
80 - II
50 - II

(7) (+2)

Continued

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. _____ Sta. No. S-46-405

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: July 17, 1946

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

green spotted dorsal
Parrot fish
210-1 (1) (1)

Acanthurus ^{atialis}
atialis
been dorsal & anal
130-11 (5) (3)
120-1
110-11

Acanthurus achilles
30-11 (4) (2)
120-1

Phalophrus argus
purple spotted
250-1 (1)

Unidentified
Pomacentrids
Unidentified
(9) sp.

over

The abundance index of ~~0.5~~ is low because the current came in strong and carried much away, then sharks fed on many dozens of fishes. This station should not be given much weight.

No specimens of: — were kept

Monotaxis grandoculis 370 mm std. l.

Cephalopholis argus 250 mm.

Color of *Amblycirrhites hemistichus*
when alive.

midlateral streaks rosy; ventral side
of body below lateral streaks with
6 or 7 yellow streaks on each side;
upper half of body between black
spots olive-green; caudal fin
lemon yellow; pink blotch on
opercle and forward around snout
between eyes and lips; lower lip
rose colored; each side of black
streaks underside of lower jaws,
rosy.

index of abundance

3100 } 510 ^{.164*}

1 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-421 Sta. No. S-46-421

State or Country: Bikini Atoll

County: Enman Island City: _____

Locality: _____

Drainage: _____ Date: July 17, 1947

Water: _____

Vegetation: _____

Taeniura
Brocki new species

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: Sheared at Depth of water: _____

Method of capture: 20 feet depth.

Collected by: V. E. Brock and Robert Heatt

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Vernon Brock made the remarkable capture of a large stingray by shearing it when diving from a boat in about 20 feet of water. This fish weighed 75 to 100 lb (estimated) was about a yard across the disk. How he got it to the surface was a marvel. It was too large to go into a 16 gal. Tank so I had to dissect a lot of it away & get the creature into a tank.

Photographed by flash light.
Vernon Brock has the sting as a souvenir.

Discarded - 1158
Preserved - 930
Total - 2088

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

~~index 209~~

19 fish photographed

Acc. No. _____ Tag No. S-46-422-440 Sta. No. 546422

State or Country: Bikini Atoll

County: Shallow pond between

Localities: Eman and Reer islands
area about 50 by ~~50~~ yards 75

Drainage: ~~10,000 sq. yds.~~ Date: July 18, 1947

Water: second pond 15 by 100 ft

Vegetation: no living corals, broken up beach
rocks, gravel, etc. Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: 25 lb. cube

Collected by: Brock, Haatt, Schultz and Myers

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

- Discarded fishes
~~Abudefduf~~ 4p 338 septyemfasciatus
Brown spotted seranid E. ... 121
Black tip ... 3 - Eulamia melanoptera
Cyprinodon ... picta - 2
Seranid sp ... 2
Balistes ... aculeata - 3
Wrasse ... H. trimaculatus 77
Wrasse 16 yellow streaked surmullet
Gnathodentex ... aurolineatus 4. [none saved].
Abudefduf glaucus → 392
Green ... 14
Holocentrus red spot 39
in dorsal sammara

Following photographed

- S-46-422 Grammites
423: Surmullet
424: 6 banded damsel fish ^{abudedefduf} ~~septemfasciatus~~
425 Trigger fish
426 lizard fish
427 Cephalopholis argus: purple spots
428 Sole
429 Trigger fish
430 Lutjanus monostigma
431 worm eel
432 Plesiops
433 Black tip sharks
434 snake eels
435 Echelid eel
436 green backed mullet
437 moray eel
438 Brown spotted ^{H. semmonei} ~~rosidus~~
439 ~~abudedefduf~~ black caudal spots
440 Echidna nebulosa
~~441~~

no specimens of Gnathodentex
aurolineatus was kept,

641 preserved
483 discarded
1124

FIELD DATA RECORD I = 1150
Division of Fishes
U. S. National Museum

462-468;

Acc. No. _____ Tag No. S-46-441; Sta. No. S-46-441
State or Country: Bikini Atoll
County: Eniwetok Island City: _____
Locality: Ocean surf at eastern end.
15 yds by ~~15~~ 50 yards.
Drainage: - Date: July 19, 1947
Water: 750 sq. yds.
Vegetation: _____

Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: 35 lb - cube
Collected by: Schultz, Brock, Myers & Hiatt
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

- Green parrot fish ~~38~~ 38
- Acanthurus triostegus ~~273~~ 278
- Mullet - ~~56~~ - neomyxus
- Weke - ~~8~~ - yellow streaked sea mullet
- Siganus rostratus ~~21~~ 21
- Naso literatus - 2
- Chromis hexagonatus 28
- Acanthurus guttatus - 5
- Abudefduf sp.? 1
- Balistes aculeatus - 5 - orange streaks on head
- Acanthurus elongatus - 37
- Acanthurus achilles - 3
- Grey parrot fish - 2
- ~~Small grey parrot fish~~

014

- S-46-441 - *Eulamia melanoptera*
 S-46-462 - grey karrot fish
 S-46-463 - grey " "
 S-46-464 - brown " "
 S-46-465 - green " "
 S-46-466 - " " "
 S-46-467 - monacanthid -
 dorsal and anal ~~with~~ yellow
 S-46-468 - *Glinophilus*

The Pempheris have pink caudal, pectoral and dorsal fins.

The three specimens of Cirrhites eye banded with 5 brown vertical blotches; cheeks with 3 orange yellow streaks; lips lemon yellow, brown orange spots on body; pectorals pink; dorsal red spotted, filaments on lips of spiny dorsal yellow.

Discarded 145
Preserved 603
748

FIELD DATA RECORD index 149
Division of Fishes 16 fish photographed
U. S. National Museum

Acc. No. _____ Tag No. S-46-442⁵⁷ Sta. No. S-46-442

State or Country: Bikini Atoll
County: Lagoon side of reef city: halfway
Locality: between Bikini and Amen Islands.

Drainage: _____ Date: July 21, 1947

Water: Area fished ~~50~~ ⁵⁰ by ~~100~~ ¹⁰⁰ yards

Vegetation: 5000 ~~1875~~ sq. yds. Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: ~~5~~ 10 ft Depth of water: _____

Method of capture: Potions 40 lb.

Collected by: Brock, Haatt, and Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Following fishes photographed in color

- S-46-442 - Holotrachys -
 - S-46-43 - Epinephelus hexagonatus -
 - 44 - Myripristis -
 - 45 - yellow tailed wrasse -
 - 46 - Holocentrus (red) -
 - 47 - sea bass -
 - 48 - file fish -
 - 49 - cardinal fish -
 - 50 - moray eel -
 - 51 - Gnathodentex -
 - 52 - scorpion fish *Scorpaena* ^{pavonifinis?} ~~albocinnamomea?~~ -
 - 53 - Pempheris -
 - 54 - Brotulid -
 - 55 - Antennarius - } double exposure
 - 56 - Acanthurus - }
 - S-46-57 - Puffer fish over exposed
- CR 6258 {
CR 6260 {
CR 6259 {

Discarded fishes in field

- Siganus striatus (59)
- yellow streaked surmullet (28) 29
- Grathodentes - (19)
- Acanthurus elongatus (11)
- ~~Chaeno~~ Ctenochaetus striatus (14)
- Green parrot fish (2)
- Epinephelus - brown spots - (6)
- Grey parrot fish - (2)
- Myriopristis (3)
- ~~Apogeton~~ (3)
- ~~Epibulus insidiator~~ 1
- ~~Atherina tenuinicki~~ - 8
- ~~Syngnathus variegatus~~ - 1
- ~~Platycephalus~~ 4
- ~~Amblycirrhitus~~ 1
- ~~Dinematisichthys~~ 4
- ~~Saracanthus~~ 1
- ~~Scorpaenodes~~ 1
- ~~Chaetodon reticulatus~~ 1
- ~~Centrotyge flavissimus~~ 2
- ~~Acanthurus olivaceus~~ 1
- ~~Hyporhamphus~~ 1
- ~~Atherina tenuinicki~~ 8
- ~~Dinematisichthys~~ 6
- ~~Gymnothorax~~ 4
- ~~Apogeton~~ 4
- ~~Abudefduf~~ 2
- ~~Syngnathus~~ 1
- ~~Pseudochromis~~ 2
- ~~Blexiniels~~ 2
- ~~Spatilloides~~ 29

29

8 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-458 ^{461, 469-472} Sta. No. S-46-458

State or Country: Bikini Atoll

County: Lagoon of City: _____

Locality: Bikini Island at Chilton Anchorage

Drainage: _____ Date: July 20 - Aug 10, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Hook and Line

Collected by: Crew of Chilton; ~~and~~ Schultz

Preservative: _____ Temp: _____ AIR

List of species or kinds, with tag numbers if drawn or discussed:

S-46-~~449~~⁴⁶⁰ - Balistes^{viridescens} - black streaks, spots, with the interspersing areas on fins yellowish.

S-46-458 - Echeneis collected by Herbert Silverman U.S.N. Yeoman 2/c mit runs freely on

S-46-459 Ablemniichans collected by Osgood Smith U.S. Fish W. Service

S-46-461 - Caranx

Other specimens not preserved

S-46-469 *Lethrinus*

Red opercular spot; maxillary
red at nictus; reticulated color
pattern of brownish green
blotches; dorsal, caudal, opercular
faint.

S-46-470 *Siganus rostratus*,
profusely spotted with
golden green spots.

S-46-471 - white tip shark

S-46-472 - *Lethrinus*

8 preserved
9

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-473 Sta. No. S-46-473
State or Country: Bikini Atoll
County: Channels and off City: _____
Locality: reef edge of leeward side of
Bikini Atoll in Arad Pass
Drainage: _____ Date: July 22, 1947
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Trolling
Collected by: J. Marr and Osgood Smith
Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Circular tag numbers of U.S.F.W.
This barracuda is plain silvery
on the sides, darker dorsally,
silvery ventrally.
no. tags 131-132; 135-139; 143.
This is the little barracuda.
Back ^{dorsal} bronze, sides lighter; black
spot in apex of pectoral;
pectoral fins yellow; no bars
on sides as found in the larger
species of barracuda.

pelvic in March 1948 as well as
pectorals still show traces of yellowish

1 preserved

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

1 photographed

Acc. No. _____

Tag No. 5-46-474

Sta. No. 5-46-474

State or Country: Bikini Atoll

County: Enyu Channel

City: _____

Locality: _____

Drainage: _____

Date: July 27, 1947

Water: 140962

Vegetation: _____

Time: P. M.

Bottom: _____

Shore: _____

Current: _____

Distance from shore: _____

Tide: _____

Depth of capture: _____

Depth of water: _____

Method of capture: Harpoon

Collected by: Lt. Cox and Larry Marques

Preservative: _____

Temp: _____

Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Manta. ♀ measured in inches

Length from middle of snout to tip of tail 86"

Fin width across wings 116

From pectoral tip to middle of snout 68

width mouth

← 20 1/2 →

Pictus to tip

of cephalic lobe

Pictus to first gill opening (inner edge) 9"

" " 2nd " " 12

" " 3rd " " 15 1/2

" " 4th " " 19 1/2

" " 5th " " 23 1/2

width of gill openings

1st - 13" 2nd - 14" third - 12 1/2

fourth - 11 and 5th 8 3/4

~~Body length~~

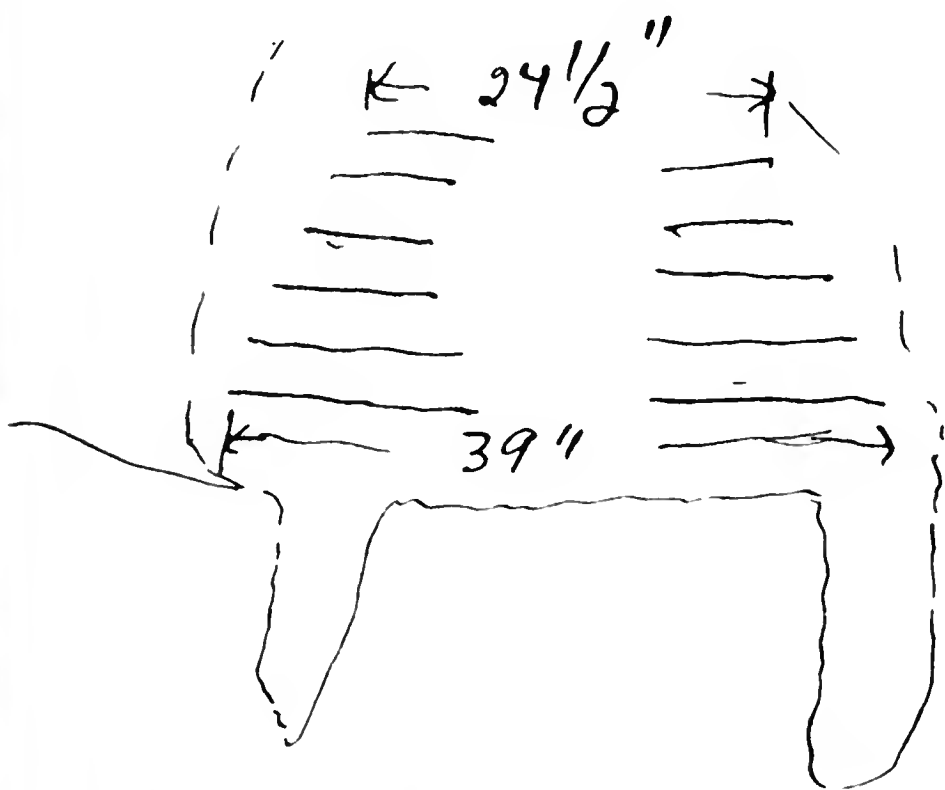
Length from midline snout or mouth to
anus 49"

Middle of snout to ^{rear} edge of disk 59"

A line between pectoral tips cross
~~mid-lengthwise~~ axis of body
37" from behind middle of
snout or mouth.

~~all~~

~~Middle of snout to outer edge of~~



width from gill (outer edges)
opening to gill
opening.

The stomach was filled with
Crustaceans, a sample was saved.

Estimated weight ~~700~~ 700 lb.

Each day last year the mantas were
seen cruising in Snyu channel. Two
harpoons were brought by me. One was loaned
to Larry Marquiss & Lt. Cox. Three mantas were
speared, all got away, breaking harpoon. The other
harpoon was loaned. This captured one!
I could only save half of it because of
the large size even after working most
of the night.

10 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-475 Sta. No. S-46-475

State or Country: Bikini Atoll

County: Outer or ocean reef off Bikini

Locality: Island

Drainage: _____ Date: July 27, 1947

Water: _____

Vegetation: _____

Time: P. M.

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: 2 feet Depth of water: _____

Method of capture: breaking up coral heads

Collected by: J. P. Schultz and Ted Bayer

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Ted Bayer showed me some eggs of a fish found by him in a coral head. We investigated to day. The pair of fish, Gobiodon, appear to live in the coral on a permanent basis, so that the coral resheds by growing ~~at~~ ^{up} to form a slight depression on a stem, purple, pink, or greenish in color, about an inch long; the nest is between and at base of one the stems, usually in the center or nearly so of the branching coral. We found these eggs, larvae, in two kinds of coral —

Always we found one pair of fish
but no more in the same coral head,^{and}
These measured about 8 to 16 inches
across. Associated with the coral
heads were Dascyllus and a
pair of Caracanthus in one.

1 preserved

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-476 Sta. No. 476

State or Country: Bikini Atoll

County: Lagoon 1 1/2 miles off City: Emman-Erick

Locality: Channel on coral head at
depth of 30 feet.

Drainage: _____ Date: July 28, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: skin diving

Collected by: V. E. Brock.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Fieraspes taken from the globular
starfish - Culcita novoguineae
Color in glass jar with water when
alive = generally transparent,
circulatory system red; tail with
red spots; sides of abdomen
iridescent; small pigment spots
on back, cheeks, under eye, on
snout, and chin; dorsal surface of
eye pinkish; peritoneum black.

1 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

1-photographed

Acc. No. _____ Tag No. 5-46-477 Sta. No. 5-46-477

State or Country: Bikini Atoll

County: Lagoon, Chilton Anchorage.

~~Locality:~~ Head saved only.

Drainage: _____ Date: July 30, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: 50 feet Depth of water: _____

Method of capture: Hook and line

Collected by: Crewman on Chilton

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Rebrius ferrugineus ♂ color brown.

Measurements in inches

Total length	89"	2260
Snout to dorsal-caudal notch	63 1/2"	1600
" " dorsal (1st) origin	38	965
" " " 2nd "	58	1470
" " pelvic insertion	38	965
" " pectoral "	16	406
" " anal origin	55	1400
" " front of anus	42	1070
Length of pectoral	15	381
" " pelvic	9 1/2	241
" " lower caudal lobe from notch	7	178
" " upper " " " "	25 1/2	648
middle tip of snout to eye	7	178
" " " " " 1st gill opening	17	432
Interorbital space	9	228
Distance upper edge 1st gill opening to last	5	127
width of 1st gill opening 2 1/2" 2nd 2 3/4" 3rd 2 1/2" 4th 2 1/2" 5th 2 3/4"		over total-5.

1 - 63.5
2 - 65.3
3 - 63.5
4 - 63.5
5 - 65.3

3 preserved
29 discarded

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. ⁴⁸¹ S-46-478-481 Sta. No. S-46-478

State or Country: Bikini Atoll

County: Boro passage City: _____

Locality: _____

Drainage: _____ Date: July 29-30, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Hook and line

Collected by: Brock, Mann & Smith

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

29 sharks - all the grey sharks, were captured. only the 3 embryos from 1 female were saved. also an external parasitic "worm" was taken from the sharks.

Embryos tagged with S-46-478-480
S-46-481 - parasite taken from gill cover of one of the sharks.

about ~~50~~ preserved
75

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-46-482 Sta. No. S-46-482

State or Country: Bikini Atoll

County: Reef just west of ~~city~~ western

Locality: end of Bikini Island

Drainage: _____ Date: July 31, 1947

Water: _____

Vegetation: _____

Time: Just AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: Breaking up coral heads.

Collected by: Schultz, J.P.

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

a few days ago I attempted to find nests of Gobiodon and found several on the reef east of Bikini Island. To check on the reef west of Bikini in regard to presence or absence of these nests I investigated a large area but found none. Their absence was largely the lack of suitable coral growths. Although great amounts of the blue coral have been killed off since last year and the ~~remains~~ are algal covered, a few are living but not the ~~the~~ branching acropora. It's

quite obvious that much damage has resulted to the reef - both on the lagoon and ocean side - probably from the bomb. The reef is now coming back to life, ~~the~~ corals are growing again in places.

One cluster of acropora in this area on ocean side of sand spit contained the young and recent young of the blue (bright) damselfish part of which were preserved.

This coral had one *Gobiodon*, immature that escaped and at least 200 or more of the blue damselfish.

I conclude that the habitat is now just becoming favorable again for the breeding of some of the shallow water fishes. It has not fully recovered.

Discarded 640
Preserved 96
736

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

I .368

22 fish photographed

Acc. No. _____ Tag No. S-46-483-504 Sta. No. S-46-483

State or Country: Bikini Atoll

County: Enyu Island at ocean reef

Locality: at channel entrance where

two poisonings took place last year.

Drainage: _____ Date: Aug 1, 1947

Water Area fished 20 yds by 100 yds

Vegetation: = 2000 sq. yds?

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: 50 lb cube net

Collected by: Schultz, Brock & Pratt

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

The following tagged fishes were photographed in Kodachrome.

film H 6259

- (S-46-483- Blue spotted sea bass ✓
- 484 - Variola louti -
- 485 - Red streaked wrasse -
- 486 - Red parrot -
- 487 - Green " - (6259-8)
- 488 - Green " -
- 489 - Cirrhites ✓
- 490 - Pterocentrus ✓
- 491 - Holocentrus -
- 492 - Myripristis
- 493 - Holocentrus
- 494 - Blue-lined wrasse - ~~fish~~ *Stethojulis alba*
- 495 - *Acanthurus* -
- 496 - *Salarias* -
- 497 - *Chaetodon* -
- 498 - *Aphogon* ✓
- 499 - *Echianus* -
- 500 - *Holocentrus* -
- 501 - *Cirrhiphetes* ✓
- 502 - *Eleotrid* with blue line on cheeks ✓

6260

5-46-503 - Needlefish ✓
 5-46-504 - Worm-eel ✓

Following fish discarded in field

green parrot fish	41
red " "	5
Myripristis	22
Lutjanus bohar	1
Naso lituratus	11
Siganus rostratus	14
Acanth. guttatus	13
Balistes aculeatus	5
" rectangularis	4
Acanthurus triostegus	66
Holocentrus	9
Thinephelus fasciatus	5
" hexagonatus	16
Abudefduf	1
"	1
Paraperis	4
Fistularia	6
Cirripectes	5
Abudefduf	12
Acanth. achilles	4
Arogon novemfasciatus	3
Arogon	2
Chaetodon auriga	2
Stethojulis	4
"	6
Leomysus	1
Holocentrus	2
Wrasse	13
Centringaster solandri	6
Acanth. elongatus	1
Pempheris	159
yellow-streaked surmullet	7
black banded "	104
Salarias	4
Bothus	21
Halichoerus	1
Halichoerus	29
Belone	2

- 2 2 1/2 inches, std. length
 unusual
 many fish
 drifted out
 to sea.

The small monacanthid or Balistid
 was green with two dark green bars
 and some small dark green spots
 on mid sides of body; mouth yellowish
 caudal fin green tinged with yellow

FIELD DATA RECORD
 Division of Fishes
 U. S. National Museum

Continued

Acc. No. _____ Tag No. 5-46483 Sta. No. _____

State or Country: _____

County: _____ City: _____

Locality: _____

Drainage: _____ Date: _____

Water: _____

Vegetation: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: _____

Collected by: _____

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

additional discards by ~~Hoatt~~

- | | |
|-------------------------|-----|
| Cephalopholis argus | - 1 |
| Conger | 1 |
| Thallosoma imbrostigma? | - 2 |
| Chelodipterus lineatus | 1 |
| Alogos frenatus | 4 |
| Cirrhitus punctulatus | 1 |
| Paracirrhite | 1 |
| Scorpaenopsis gibbosa | 1 |
| Scorpaenoides | 1 |
| Caetodon setifer auriga | 1 |
| Acanthurus guttatus | 1 |
| Balistes rectangulus | 1 |
| " aculeatus | 1 |
| Centrigaster solandri | 2 |

1 specimen.

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. ⁴² S-46-505 Sta. No. _____

State or Country: Bikini Atoll

County: Reef off western end of

Locality: atoll near Namu Island.

Drainage: _____ Date: Aug 1, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Spear

Collected by: V. E. Broch

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

20 feet depth. Black-banded eel, - *Echidna zebra*?

Preserved 37 specimens.

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-46-506 Sta. No. _____
State or Country: Kwajalein Atoll
County: _____ City: _____
Locality: near stern of the Prince
Engden on Erubuj Island.
Drainage: _____ Date: Aug 3, 1947
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: 50 feet
Method of capture: Protonone
Collected by: Brock, Schutt, and Donaldson.
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

This ship has sunk on reef,
then rolled over, bottoms up,
with 2 of her 3 propellers
out of the sea. It is emitting
radiations of considerable extent.

about 200 preserved

FIELD DATA RECORD

Division of Fishes
U. S. National Museum

Acc. No. _____

Tag No. _____

42
S-46-507

Sta. No. _____

47
S-46-507

State or Country: _____

Bikini Atoll

County: _____

Western side of

City: _____

Locality: _____

reef of Bikini Atoll

Drainage: _____

Date: Aug 1-5, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____

Current: _____

Distance from shore: _____

Tide: _____

Depth of capture: _____

Depth of water: _____

Method of capture: _____

Stomach contents of Turra.

Collected by: _____

Marr and Smith

Preservative: _____

Temp: _____

Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

During my aid of Marr in the identifications of stomach contents some of the better material was saved.

~~227~~ Recarded 227
 Preserved 495
 722

FIELD DATA RECORD *Aug. 128*
 Division of Fishes
 U. S. National Museum *26 fish photographed*

Acc. No. _____ Tag No. *S-46-508-515* Sta. No. *S-46-508*

State or Country: _____ *S-1001 to S-1018*

County: *Bikini Atoll* City: _____

Locality: *Namu Island, lagoon reef*
at east end, lithothamnium ridge.

Drainage: *area 5 by 75 yds* Date: *Aug 6, 1947*

Water: *5625 sq. yds.*

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: *50 lb. Kube*

Collected by: *Schultz, Brock and Hiatt*

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Kodachrome photos of fish

- | | | | | |
|------------------------------|-----------------------|------------------------------|------------------------------|---------------------------|
| <i>film #</i>
<i>6251</i> | } | <i>S-46-508</i> | <i>Hyporhamphus</i> | |
| | | <i>509</i> | | |
| | | <i>510</i> | <i>Chaetodon citrinellus</i> | |
| | | <i>511</i> | <i>Holocentrus diadema</i> | |
| | | <i>512</i> | <i>Green damselfish</i> | |
| | | <i>513</i> | <i>Apogon</i> | |
| | | <i>514</i> | <i>Brown damselfish</i> | |
| | | <i>515</i> | <i>Puffer</i> | |
| | | <i>S-1001</i> | <i>Apogon</i> | |
| | | <i>*11 S-1002</i> | <i>Parrot fish (green)</i> | |
| | | <i>S-1003</i> | <i>Acanthurus olivaceus</i> | <i>yellow color phase</i> |
| | | <i>S-1004</i> | <i>Chaetodon</i> | <i>"change size"</i> |
| | | <i>1005</i> | <i>Acanthurus</i> | |
| | | <i>1006</i> | <i>Goby</i> | |
| | | <i>6261</i>
<i>film #</i> | } | <i>1007</i> |
| <i>1008</i> | <i>Wrasse</i> | | | |
| <i>1009</i> | <i>Oxymonacanthus</i> | | | |

one

~~S#~~
 S-1010 - *E. noides* Brown grouper "
 S-1011 - *Myripristis* "
 S-1012 - " "
 S-1013 - *Siganus* "
 1014 - *Acanthurus* "
 1015 - *Holocentrus* "
 1016 - Ramsel fish "
 1017 - *Naso* "
 S-1018 - *Gomphosus baerleus*

film #
 6262

Discarded fishes

<i>Cephalopholis argus</i>	-	1
<i>Epimphelus</i>	-	1
<i>Hyporhamphus</i>	-	77 55
<i>Siganus rostratus</i>		14
<i>Naso lituratus</i>		1
Green parrot fish		8
gray " "		3
<i>Acanthurus triostegus</i>		4
<i>P. emphelus</i>		2
<i>Chromochactus striatus</i>		28
Black abudifduf		47
<i>Myripristis</i> - 2 species		15
<i>Epimphelus hexagonatus</i>		15
<i>Holocentrus</i> - 2 species		7
<i>Balistes rectangulus</i>		1
the green abudifduf		3
<i>A. achilles</i>		14
<i>Chaetodon citrinellus</i>		3
<i>Aprogon novemfasciatus</i>		1
" sp.		1
<i>Paraperis</i>		1
Labrids		2

Discarded - 511
Preserved - 520
1031

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

index . 206

31 fish photographed
563

Acc. No. _____ Tag No. S-42-533 Sta. No. S-42-533

State or Country: Bikini Atoll

County: Reef in lagoon about at

Locality: end of sand spit west of
Bikini Island

Drainage: area 50 x 100 =

Date: August 18, 1947

Water: 5000 sq. yds.

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____

Current: _____

Distance from shore: _____

Tide: _____

Depth of capture: _____

Depth of water: _____

Method of capture: 50 lb. trawls

Collected by: Brock, Schultz

Preservative: _____

Temp: _____

Air: _____

List of species or kinds, with tag numbers if drawn or discussed:

Following fishes photographed in
Kodachrome.

Film #s
6274
6275
6276

- S-42-533 - Holocentrus
- 534 - Surmullet (yellow streak)
- 535 - Chaetodon
- 536 - Wrasse
- 537 - Grammistes
- 538 - Epinephelus
- 539 - "
- 540 - acanthurus elongatus
- 541 - Holotrachys
- 542 - Wrasse

no good
4 pm

- 543 - Naso littoralis
- 544 - Eleotrid - blue cheek line
- 545 - goatfish
- 546 - Wrasse
- 547 - Wrasse

S-42-548 - mullet, yellow rect. base

only

- 5-46 - 549 - Wrasse } *Cheilim trilobatus*
 550 - *Gomphosus* } no good spec
 551 - Wrasse
 552 - *Gymnothorax*
 553 - *Bothus*
 554 - *Gymnothorax* - fins green edged
 555 - " - eye - blueish purple
 556 - worm eel
 557 - *Gymnothorax*
 558 - *Holocentrus*
 559 - *Gymnothorax*
 560 - Conger
 561 - Wrasse
 562 - *Echidna nebulosa*
 5-42 - 563 - Parrot fish. ✓ ABCR 0275-11

Following fishes discarded in field

<i>naso littoralis</i>	10
<i>nomysus chaptalii</i>	87
<i>Acanthurus triostegus</i>	53
yellow snails surgeonlet	49
<i>Siganus rostratus</i>	34
<i>Acanthurus elongatus</i>	48
<i>Gnathodentex auro.</i>	14
<i>Epinephelus hexagonatus</i>	74
Octopus	6
Abudefduf - black	95
green parrot fish	3
grey parrot	8
<i>HoloTrachys</i>	1
<i>Holocentrus</i> (yellowish fins)	7
" red stripe	1
Labrid	11
<i>Cheilinus</i>	2
<i>Thalassoma</i> - with black caud. spot	4
<i>Mora</i> surgeonlet (black bars)	4

511

114 fish specimens

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-42-564 Sta. No. S-42-564
State or Country: Bikini Atoll
County: Bikini Island sand spit
Locality: at western end in shallow tidal pools.
Drainage: _____ Date: Aug 18, 1947
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: cube net
Collected by: Schultz and Brock
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

These pools were only 3 to 6 inches deep with a few loose rocks.

12 specimens

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-42-565 Sta. No. 5-42565
State or Country: Bikini reef atoll
County: Reef on ocean side of
Locality: Bikini Island
Drainage: _____ Date: Aug. 16, 1947
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Breaking up corals
Collected by: Ted Bayer
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

1 specimen

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. 5-42-566 Sta. No. 5-42-566

State or Country: Bikini Atoll

County: Namunuland City: _____

Locality: Western end ocean reef

Drainage: _____ Date: Aug 19, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: Spear

Collected by: V. Brooks & L.P. Schultz

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Belonti or Tylosurus

2 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-42-567,568 Sta. No. 592-507
State or Country: Rongerik Atoll
County: _____ City: _____
Locality: _____
Drainage: _____ Date: Aug 22, 1947
Water: _____
Vegetation: _____
Time: _____
Bottom: _____
Shore: _____ Current: _____
Distance from shore: _____ Tide: _____
Depth of capture: _____ Depth of water: _____
Method of capture: Trolling
Collected by: J. Marr
Preservative: _____ Temp: _____ Air: _____
List of species or kinds, with tag numbers if drawn or discussed: _____

Sphyræna -
There are two yellow-orange streaks on the sides of this species of barracuda.
Myers has published a note in Copeia on this species and thinks it is aureoflamma?

but (II/8/48) I find it is
Sphyræna helleri Jenkins

800

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-42-569 Sta. No. _____

State or Country: Johnston Island, about
County: 750 miles southwest City: of Hawaii Honolulu.

Locality: northwest side and northeast
side of reef.

Drainage: _____ Date: August 28, 1947

Water: _____

Vegetation: Corals abundant, also many
deep pools - to 10 feet. Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: low

Depth of capture: _____ Depth of water: _____

Method of capture: 45 lb. cube root

Collected by: J. P. Schultz, R. T. Miasoski and

Preservative: L. Warner Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Several species here are not found at Bikini. -

The Pomacentrid was bright reddish-orange with several narrow blackish bars on sides, a most gorgeous creature.

Another Pomacentrid - centers of scales white, had rich blue pelvics with white edges.

There were no groupers taken which may mean that these have not yet reached this island.

A large Caranx was seen, blennies are very uncommon. I saw no Caracanthids, Parapercids or Gobiiodons. Eriota was seen and a few taken. Manta are

Here along with sharks; a stingray was seen
by Warner;

The

500

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

Acc. No. _____ Tag No. S-42-570 Sta. No. _____

State or Country: Oahu Island: One mile

County: northeast of Waianua Bay:

Locality: High but deep tidal pool nearly 150 feet long - 8 to 6 feet deep.

Drainage: _____ Date: Aug. 31, 1947

Water: _____

Vegetation: _____

Time: 7 to 9 AM

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: _____

Method of capture: About 10 lb. Cubè root

Collected by: Schultz and Brock

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Following fishes discarded

<u>A. guttatus</u> - ①	4
Epinephelus hexagonatus -	35
Chaetodon reticulatus - - -	4
Acanth. elongatus	47
Green parrot fish	25
Gnathodentex	18
Gray parrot fish	5
Ctenochaetus striatus	25
Black abudedefduf	15
Chaetodon citrinellus	8
A. achilles	4
A. triostegus	58
Red lined Holocentrus	65
Gray Holocentrus	29
Abudedefduf glaucus	1
Myripristis	27
Chaetodon punctafasciatus	3
Holocentrus	2
Cephalopholis argus	1
Red parrot	1
Holocentrus (yellow fins (large species))	8
Epinephelus - large brown spots -	1
	9
	383

26 preserved

FIELD DATA RECORD
Division of Fishes
U. S. National Museum

Acc. No. _____ Tag No. S-1040 Sta. No. S-1040

State or Country: Bikini Atoll

County: Enewe Island off reef in

Locality: deep water.

Drainage: _____ Date: August 7, 1947

Water: _____

Vegetation: _____

Time: _____

Bottom: _____

Shore: _____ Current: _____

Distance from shore: _____ Tide: _____

Depth of capture: _____ Depth of water: to 30 ft.

Method of capture: Poison at 20 to 30 feet

Collected by: Donaldson, J.R. & Welander, art

Preservative: _____ Temp: _____ Air: _____

List of species or kinds, with tag numbers if drawn or discussed: _____

Pterocaris ^{tbl} or ~~larva~~ colored ~~is~~
kept as follows in formalin day after
capture with no observable change:
Back dark blue to light blue, sides
above lateral line light blue, under side
rose colored, this color caused by
the center of each scale being
rose tinged, with margins white;
a yellowish-brown streak along
lateral line anteriorly then running
a straight course to fin with and
continue as the black streak in
upper lobe of caudal ~~peduncle~~ fin,
lower lobe with black streaks;
eye pinkish.

Uncollected - gone to Donaldson
of U. of Washington 1961
Preserved 217

FIELD DATA RECORD

Division of Fishes

U. S. National Museum

36 fish photographed

Acc. No. 398 Tag No. 5-1041-1075 Sta. No. 5-1041

State or Country: Rongerik Atoll

County: Lato Back Is. in City:

Locality: Lagoon

Drainage: Date: August 14, 1947

Water:

Vegetation:

Time:

Bottom:

Shore: Current:

Distance from shore: Tide: low

Depth of capture: Depth of water:

Method of capture: 50 lb. cube

Collected by: Schultz, Brock and Donaldson et al.

Preservative: Temp: Air:

List of species or kinds, with tag numbers if drawn or discussed:

Following photographs taken in color

Film
II
6265

- | Tag # | Species | Shot # |
|--------|------------------------------------|--------|
| 5-1041 | Serranid (no good) | 1 |
| 1042 | E. hexagonatus ✓ | 2 |
| 1043 | Wrasse ✓ Thalassoma quinquevittata | 3 |
| 1044 | Alogon - black sand, spot ✓ | 4 |
| 1045 | Holocentrus diadema ✓ | 5 |
| 1046 | Scorpaena ✓ | 6 |
| 1047 | Epibulus ✓ | 7 |
| 1048 | green parrot ✓ | 8 |
| 1049 | Serranid ✓ | 9 |
| 1050 | Ctenochaetus striatus ✓ | 10 |
| 1051 | Chaetodon ✓ | 11 |
| 1052 | Wrasse ✓ | 12 |

Film
6272

- | | | |
|--------|----------------------------|---|
| 5-1052 | Wrasse (done over) ✓ | 1 |
| 5-1053 | Acanthurus ✓ | 2 |
| 5-1054 | Sur mullet - black bars ✓ | 3 |
| 5-1055 | Scorpaenodes parvifinnis ✓ | 4 |
| 5-1056 | Wrasse ✓ | 5 |
| 5-1057 | Holocentrus ✓ | 6 |
| 5-1058 | abridged - blue speck ✓ | 7 |
| 5-1059 | Scarus - yellow spot ✓ | 8 |

over

Film#

6272

S-1060 - Gymnothorax ✓	9
S-1061 - Wrasse ✓	10
S-1062 - Serranid ✓	11
S-1063 - Parrot fish ✓	12

Film#
6273

S-1064 - Cephalopholis argus ✓	1
S-1065 - Wrasse -	2
S-1066 - Amphiprion melanopus	3
S-1067 - yellow box fish ✓	4
S-1068 - Basicyllus ✓	5
S-1069 - Wrasse -	6
S-1070 - Amphiprion Parrot fish	7
S-1071 - Epinephelus fuscoguttatus	8
S-1072 - Wrasse -	9
S-1073 - Parrot fish ✓	10
S-1074 - Holotrachys ✓	11
S-1075 - acanthurus ?	12

Following fishes discarded in the field

Epinephelus luxogonatus -	25
Ctenochaetus striatus -	45
Pomacentrus -	21
Green parrot fish, yellow bar	2
Sarnullat - yellow stripes -	3
Holocentrus diadema -	24
Grey parrot -	5
Naso lateralis -	1
Hyphorhamphus - 42	42

Coropis came from armless starfish Culcita