

State or Country: CALIFORNIA Field No. H.51-143 ^A 21

County: SAN DIEGO Map: , 1

Locality: ON BEACH IN FRONT OF SCRIPPS AT LOW TIDE

Lat. N, Long. W.

Water: SALT

Vegetation:

Bottom:

Cover: Temp.:

Shore: Current:

Dist. offshore: Stream width:

Depth of capture: Depth of water:

Collected by GRACE ORTON

Tide: LOW Date: 11/17/1951

Method of capture: WASHED UP ON BEACH

Orig. preserv.: ALIVE Time: NOON

Eggs attached to small piece of driftwood bearing small goose barnacles.

23. Calolabis saira (Brevort): small cluster of developing embryos.

B

State or Country: California Field No. H51-143-2
County: San Diego Map: _____, 1
Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.
Water: Salt
Vegetation: _____

Bottom: _____
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: _____ Stream width: _____
Depth of capture: _____ Depth of water: _____
Collected by Grace Oton
Tide: low Date: 11:18:1951
Method of capture: washed up on beach
Orig. preserv.: alive Time: Noon

23 Cololabis saira (Brevort): 1 egg on piece of fiber
matting

State or Country: California Field No. H51-143-3

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: IX: 21: 1951

Method of capture: washed up on beach

Orig. preserv.: alive Time: noon

23. Cololabis saira (Brevort): large bunch of eggs on
Cystosera, a few others scattered on additional
pieces of Cystosera

State or Country: California Field No. H143-4,5
County: San Diego Map: 1
Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.
Water: Salt
Vegetation: _____

Bottom: _____
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: _____ Stream width: _____
Depth of capture: _____ Depth of water: _____
Collected by Grace Orton
Tide: low Date: IV: 22: 1951
Method of capture: beached up on beach
Orig. preserv.: _____ Time: noon

H 143-4 23. Cololabis saiva (Brevoort): small clusteral and single
eggs on Cyrtosira, Sargassum, Egregia, and
rosette of a clump of eel grass.

40. Atherinopsis californiensis: small mass of eggs on
red algae, dead but in an advanced stage
and well developed and pigmented.

H 143-5 IV: 23 through IV: 27 — beach checked daily, no eggs
found.

State or Country: California Field No. H51-143-6

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: IV: 28: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Calalabis saika (Brevoort): small groups of eggs on
Cytosera and other algae, in scattered
localities between Beach Club and SIO.

Weather: stormy, much trash on beach

**Found dried in Orton's cabinet; discarded
15 Aug. 1967.**

State or Country: California Field No. H51-143-7

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Norton

Tide: _____ Date: IV. 29. 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cololabis saira (Brevoort): small groups of
eggs on Cystoseira and other plants; beach
checked from Beach Club to SIO; stormy,
much debris on beach.

State or Country: California Field No. H51-143-8

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Bruce Orton

Tide: Low Date: IV:30:1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23. Cololabis saira (Brevort): small number of eggs
on red algae and miscellaneous debris

40. Atherinopsis californiensis: cluster of about 15
empty egg capsules on red algae

Atherinops affinis: 4 damaged eggs on
miscellaneous debris

State or Country: California Field No. H51-143-9, 10 ¹¹

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: _____ Date: V: 12 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

¹
H51-143-9 40 Atherinops affinis: 5 damaged eggs on red
algae and miscellaneous debris V: 11 1951

³
H51-143-10 V: 2 1951 - Beach checked, no eggs found

State or Country: California Field No. H 51-143-11

County: San Diego Map: _____, 1

Locality: on beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: _____ Date: Y. 3: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

40. Atherinopsis californiensis: mass of about 200 eggs
on red algae (alive; hatched V: 13-14).

Atherinops affinis: 1 damaged egg

{ 7 larvae preserved 25 May 1951; found
dried in Orton's cabinet; discarded 9 Aug. 1967

State or Country: California Field No. H51-143-12

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: Low Date: V: 4: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

40 Atherinopsis californiensis: 1 empty egg capsule

Atherinops affinis: 2 empty egg capsules, on eel grass roots and red algae

State or Country: California Field No. H51-143-13 ^M

County: San Diego Map: _____, 1.

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: _____ Date: Y. 5. 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cololabis saira (Brerart): 7 eggs in advanced stages, heavily pigmented (alive)

Cypselurus californicus: 1 live egg

40 Atherinopsis californiensis: 3 dead eggs on twig of red algae

Atherinops affinis: 7 eggs, all dead

State or Country: California Field No. H51-143-14
County: San Diego Map: _____, 1
Locality: On beach in front of Scripps

Lat. _____ N, Long. _____ W.
Water: Salt
Vegetation: _____

Bottom: _____
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: _____ Stream width: _____
Depth of capture: _____ Depth of water: _____
Collected by Grace Orton
Tide: _____ Date: V. 6:1951
Method of capture: Washed up on beach
Orig. preserv.: _____ Time: noon

23. Cololabis saira (Brevoort): about 50 on Cystosaura,
in various stages before blastopore closure;
beach checked from Beach Club to SIO.

Cyselurus californicus: 2 live eggs

40 Atherinops affinis: 1 dead egg

State or Country: California Field No. H.51-143-17, 18

County: San Diego Map: 1

Locality: On beach in front of Scripps

Lat. N., Long. W.

Water: Salt

Vegetation:

Bottom:

Cover: Temp.:

Shore: Current:

Dist. offshore: Stream width:

Depth of capture: Depth of water:

Collected by Grace Eaton

Tide: Date: May 9, 1951

Method of capture: Washed up on beach

Orig. preserv.: Time:

23. Cypselurus californicus: 1 empty egg capsule

61. Heterostichus: cluster of 9 eggs (3 live, 6 damaged) on
blade of eel grass near base of small plant (eggs
died x11).

Not much debris on beach

Beach checked, no eggs found; moderate amount
of debris

State or Country: California Field No. H51-143-19 ^S

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Eaton

Tide: low Date: V: 11: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cypselurus californicus: 9 eggs on red algae and eel grass (8 alive, in stages ranging from very early to very advanced) & the 2 advanced specimens hatched V: 167

40 Atherinops affinis: mass of about 50 eggs tangled in red algae (only 1 alive, in advanced stage and well pigmented, hatched V: 16), and 1 additional separate egg on other debris (all dead).

Moderate amount of debris on beach, including numerous clumps of red algae.

TU

State or Country: California Field No. H51-143-2921
 County: San Diego Map: _____, 1
 Locality: On beach in front of Scripps

 _____ Lat. _____ N., Long. _____ W.
 Water: Salt
 Vegetation: _____

 Bottom: _____
 Cover: _____ Temp.: _____
 Shore: _____ Current: _____
 Dist. offshore: _____ Stream width: _____
 Depth of capture: _____ Depth of water: _____
 Collected by Grace Onton
 Tide: low Date: V: 12: 1951
 Method of capture: Washed up on beach
 Orig. preserv.: _____ Time: noon

SI-143-20 23 Cypselurus californicus: 2 eggs (1 dead, 1 live, the latter in early stage with germ ring covering about half of egg.)

40 Atherinops affinis: 1 dead egg.

Beach checked from Beach Club to S10; moderate amount of debris present; all 3 eggs obtained were on red algae; All Cystodina examined, but no Cololabis found.

U
SI-143-21
V: 14-17 V: 14 Beach checked, no eggs found; moderate amount of debris, including much eel grass

V: 15 Beach checked, no eggs found; beach clean, extremely little debris

V: 16 Beach checked, no eggs found

State or Country: California Field No. H51-143-22

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: Y: 17: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

40. Atherinopsis saliforniensis: several empty egg capsules.

Atherinops affinis: 3 live eggs, in advanced stage.

All eggs found on small fronds of red algae at base of the same eel grass plant.

State or Country: California Field No. H51-143-23
County: San Diego Map: _____, 1
Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.
Water: Salt
Vegetation: _____

Bottom: _____
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: _____ Stream width: _____
Depth of capture: _____ Depth of water: _____
Collected by Grace Orton and Patricia Barton
Tide: low Date: V. 18: 1951
Method of capture: Washed up on beach
Orig. preserv.: _____ Time: noon

23. Cololabis saira (Brevoort): ± 100 on eel grass, tangled
in debris around base and roots of one plant;
blastopore closed, Kuppfer's vesicle present.

Cypselurus californicus, 1 live and several empty
capsules, on red algae.

40. Atherinops, 2 live and several empty capsules on
red algae.

State or Country: California Field No. H.51-193-24

County: San Diego Map: _____, 1

Locality: La Jolla, on beach at foot of Marine Street

Lat. _____ N., Long. _____ W.

Water: salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: _____ Date: V: 19: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cololabis saira (Brevoort): 2 eggs on small brown
algae

State or Country: California Field No. H51-143-25

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N, Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Onton

Tide: low Date: Y: 21: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cypselurus californicus: 4 on red algae (3 live, 1 hatched
V.I.I., 1 empty capsule)

State or Country: California Field No. H.51-143-26

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: V. 22. 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Calolabis saira (Brevoort): 10 (5 live, 5 dead), on
Cystoseira, red algae, and roots of eel grass

State or Country: California Field No. HSI-143-27^a

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: Y: 23: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

- 23 Cololabis saira (Breyer): 1 egg on Cyrtosira
(live, circulation recently started, some
pigmentation)

State or Country: California Field No. H51-143-28^{b,c}29

County: San Diego Map: 1

Locality: On beach in front of Scripps

Lat. N., Long. W.

Water: Salt

Vegetation:

Bottom:

Cover: Temp:

Shore: Current:

Dist. offshore: Stream width:

Depth of capture: Depth of water:

Collected by Grace Orton

Tide: low Date: V: 24: 1951

Method of capture: Washed up on beach

Orig. preserv.: Time: noon

51-143-2823 Cololabis saira (Brevoort): 10 eggs on eel grass
Call on base of same plants; in ± 32 cell cleavage
stage. [Hatched V: 31-VI:1, + weekend VI:2-3]

51-143-29
V: 27:51 Checked beach at foot of Marine Street in La
Jolla; no eggs found

State or Country: California Field No. H51-143-30
County: San Diego Map: 1
Locality: On beach in front of Scripps

Lat. N., Long. W.
Water: Salt
Vegetation:

Bottom:
Cover: Temp.:
Shore: Current:
Dist. offshore: Stream width:
Depth of capture: Depth of water:
Collected by Grace Onton
Tide: low Date: V: 28: 1951
Method of capture: Washed up on beach
Orig. preserv.: Time: noon

- 23 Cololabis saira (Brevoort): 15 eggs (39 live, 6 empty capsules), 42 in clusters on a piece of sargassum-like algae; 3 on red algae at base of an eel grass plant, with an empty Cypselurus capsule. Some hatched V: 29; eggs and larvae preserved V: 29.

Cypselurus californicus: 8 (4 live, 4 empty capsules), on red algae.

- 40 Atherinops affinis: 3 (2 live, 1 empty capsule), on red algae.

State or Country: California Field No. H51-143-21 ^e

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Water: Salt Lat. _____ N, Long. _____ W.

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Ostron

Tide: low Date: 4.31.1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23. Gypselurus californicus: 1 egg on red algae

Beach very clean, extremely little debris.

State or Country: California Field No. H51-143-31

County: San Diego Map: _____, 1

Locality: On beach in front of Scripps

Water: Salt Lat. _____ N., Long. _____ W.

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: VI. 1. 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23. Cololabis saira (Brevoort): 14 eggs (12 on Cystoseira; in very early germ. ring stage, 2 damaged eggs on eel grass)

Cypselurus salicornicus: 2 eggs (1 on red algae, in late blastula stage; 1 on eel grass, in stage with circulation just starting)

40. Atherinops affinis: 1 egg on red algae (advanced embryo, well pigmented)

Beach very clean, not much debris

State or Country: California Field No. H 51-143-22

County: San Diego Map: _____, 1.

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: VI: 4: 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cololabis saira: 43 eggs on base of a large red grass plant (in late blastula stage)

Cypselurus californicus: 2 eggs on red algae

State or Country: California Field No. H51-143-34 ^h

County: San Diego Map: _____, 1.

Locality: On beach in front of Scripps

Lat. _____ N., Long. _____ W.

Water: Salt

Vegetation: _____

Bottom: _____

Cover: _____ Temp.: _____

Shore: _____ Current: _____

Dist. offshore: _____ Stream width: _____

Depth of capture: _____ Depth of water: _____

Collected by Grace Orton

Tide: low Date: VI. 5. 1951

Method of capture: Washed up on beach

Orig. preserv.: _____ Time: noon

23 Cypselurus californicus: 2 eggs (1 on Cystoseira,
1 on Phyllospadix)