

Copied for CAS
July, 1946

Sta. No. H 45-70

Locality: Calif.: Newport Bay entrance, just
E. of Balboa Island

Lat. ° 'N.; Long. ° 'W. (USC & GS chart _____, 19____)

Water: moderately clear; salt

Vegetation: mostly dense Zostera

Bottom: firm to soft sand, some mud

Temp.:

Shore: sand beach

Current: none to slight tidal

Distance from shore: out 150 ft.

Tide: * 0.0 at 2:20 P.M.

Depth of capture:

Depth of water: to 5 ft.

Method of capture: 17 x 3' mesh seine with bag and 25' Baird seine

Collected by: C. L. + L. C. Hubbs and E. M. Kamp Date: V. 9. 1945

Orig. preserv^{10%}: form + borax

Time: 1:30 - 4:00 p.m.

* Correction for Balboa.
Almost all saved except for many yg. to be ad.
♂'s and ♀'s of Cymatogaster. Excellent seining conditions.

40. Atherinopsis c. californiensis: small (disc.)
series of very yg. in Scripps postwar collection

40 Atherinops affinis littoralis: series of (disc.)
hl. gr. - ad.

40 Atherinops affinis cedrosensis: sm. series (disc.)
of yearlings
Two subsp. kept together in 2 - Two
quart jars at Scripps,

47. Embrotoca jacksoni: yg. only. Separately
measured according to color (red phase,
intermediates, and green, as described for
last collection). Preserved 2 each in red
and green phase and 2 in green phase
but apparently representing an unbanded
mutant. These six to CAS. Remainder
counted and discarded. Total. 102 spec.
6 preserved, 55-106 mm.

Cymatogaster aggregatus: ⁵⁰ yg. ⁶¹ ad. sm. series
CAS 19414 saved, mostly discarded 34-106
47. Micrometrus minimus: yg. - ^{larger} ad. large series
saved for counts. ~~19(25-29)~~ 23 5 to Karel Liem
Sep 1982

51. Sirella nigricans: 1 hl. yr.

53A. Sebastes rastrelliger? : 1 yg. (38.5)
specklings and mottlings
Cream base with blackish purple bars. All
fins dark, except C. which is very pale pink,
with broad clear posterior border and watery
greenish base.

55. Scorpaenichthys marmoratus: 4 lg. yg. 4(48-59)

Back pale and dark olive brown, the pale
areas being rather bright silvery below with
some pink in bars on lower fins, and very
weakly to rather strongly in reticulations
on adjacent parts of body and lower
surface of head.

Septocottus armatus australis: yr. to large ad.

^{Bryx}
57. Aygnathus arctus: 7 hl. yr. - ad. ^{72-88 mm.} ♂'s without
yg. Very pale olive to purplish black,
with or without fin to coarse, dark cross markings.
Two rows of spots on side of trunk, along the
two cornea, more prominent in upper than in
lower row. Median corina of belly with fine
~~black~~ streak, dusky to black. Dermal filaments
over body, obsolete to rather strong. One
specimen has a two-rayed fin near middle of
tail growing ~~outward~~ upward and forward from
upper lateral corina at a region of a healed
injury.

57. con. Syngnathus auliscus : 1 ad. ♀, 122 mm.

57 Syngnathus ^{leptorhynchus} griseo-lineatus barbarus ; large series, yg. - lg. ad. ♂'s + ♀'s. ♂'s with yg. ^{120-239 mm.}

57 Syngnathus ^{exilis} hualdi : 17 hl. yg. - ad. ♂'s + ♀'s

Syngnathus e. californiensis : 11 hl. yg. - ad., not incl. br. ♂'s.

The distinction noted for last collection holds. All of the specimens of hualdi show the puffed region on posterior part of abdomen, and this was observed in life. The californiensis specimens show this character only weakly. The condition overlaps slightly between the two species.

The general robustness of barbarus particularly in the snout region, contrasts sharply with the slenderness of hualdi.

The ^A distinction between hualdi and californiensis in coloration is very definite. In hualdi the light markings form definite longitudinal streakings in a few specimens along the side of the tail and to a slight degree along upper dorso-lateral surface of trunk (but here the streaks when developed are very faint and made up of broken dashes. In none of the specimens ^{of hualdi} are there definite streakings on the top of the head and nape, whereas such markings occur here in all but 3 of the specimens of californiensis; in all except these 3 there are definite light centers on the nuchal plates set off by dark streaking. In this respect barbarus is intermediate, sometimes closely approaching

californiensis, though when the top of the head and nose are streaked, the nuchal plates are usually finely speckled or streaked, ~~not so~~ ~~definitely~~ and either not light centered or less definitely light centered than usually in californiensis.

In barbarae the lower ~~surface~~ sides of the head are almost invariably streaked or speckled with dark and light. In ~~the~~ heraldi these marks are particularly strong on yg. and bl. gr. but persist in the adult, at least on the opercular region where they are commonly red to gold. In the heraldi specimens such markings are weakly developed in only 2 and very weakly in 2 or 3 others. As a result at least $\frac{3}{4}$ of the specimens of the 2 species can be told apart by a glance at the lower side of the opercular region. On the average this region as well as the lower surface of the trunk is brassier in heraldi than in barbarae. In this color feature californiensis overlaps both.

The row of dark specks on the lower lateral corium of the trunk vary from weak to strong in californiensis, and from absent (usually) to weak in the 2 other species.

On this basis alone a $\frac{3}{4}$ separation between californiensis and the other forms is possible.

In about half the age specimens of heraldi, the light color of the belly ~~from~~ is extended as definite semi-circles onto the

Group 57 cm.

Lower lateral plates and in these specimens there are usually prominent light spots along other corinae. This scalloped coloring is seldom developed in the two other species. (continued on back next sheet)

Hybrid: One probable hybrid between barbarae and californiensis. ^{with seemingly unfertilized ova.}

Rings 19 + 42 = 61 Dorsal: 36 Total: 97

These counts within range of barbarae but high. General color green with light streaks over back and sides. This streaking is more conspicuous than in any of the specimens of barbarae but there is an approach to that species in that the streaking is in a finer pattern than is usual in the streaked specimens of californiensis. Furthermore, the light centers of the vertical plates are less conspicuous and narrower, thus being intermediate between the condition usual in californiensis and the homologous markings when developed in barbarae. The specks along the lower lateral corinae are weaker than in almost all specimens of californiensis but more definite than in any of the barbarae specimens. On the lower $\frac{2}{3}$ of the opercle there are only a few blackish streaks less definite than the markings here in at least $\frac{3}{4}$ of the barbarae specimens. The amount is definitely slenderer and more produced than in specimens of barbarae of like size. In this respect the agreement is

better with californiensis, but the general form is definitely too robust for that form.

CAS 19411
Counts taken
61 Parachanna integriceps: 1 ad. ^{45 mm} D. eye purplish with ^{a scalloped band of} pink near D. fin and some large squarish blotches of pinkish brown below middle of sides. Base of pectoral orange, C. fin almost colorless, with weak greenish bars. ~~One yg.~~

Had eaten one yg. Subbansia ^{sinus} ~~elegans~~ elegans: yg - ad.

Heterostichus rostratus: series very yg. to large adult. Fifty-two in ed grass phase or very nearly so, including 4 very yg., apparently transforming into this phase; 39 atypical for the ed grass, either because ground color is altered while the silver stripes remain or because the silver stripes are disrupted or diffuse, occasionally obsolescent while the dark bars are more or less developed, either disrupted or continuous. None is in the typical kelp phase though some approach it, ground colors may be grayish, greenish, purplish or brownish.

1 yg. later by Parachanna

CAS

One adult is pale olive greenish with 5 dark stripes. ~~A few~~ ^{One} ~~are~~ have the light markings almost confined to spots and reticulations, most of these specimens show ~~or~~ varying combinations of stripes and bars, with ~~or~~ without light spots or dark spots. In some the dark bars are represented by intensifications of the dark stripes, and to some extent this is true of some of the specimens

Group 61 - Heterostichus var.

counted as in the red grass phase.

Hypsoblemnus gilberti : 2 ad. ♀'s (79-92)

61 Hypsoblemnus gentilis : 2 ad. ♂ with bright

2(58.5-96) orange tips of chin, one orange-red V behind this, a second such V interrupted at middle and trace of a third represented by ends on the branchostegals. Thicker part of filament black, thinner reddish brown. A bare trace of pink on D. near base. Spots extending from muzzle to below end of spinous D. becoming larger and fainter behind. Ground color pinkish olive and gray. ♀ greenish olive and blue-gray; the spot on spinous D. is metallic blue-black, followed by metallic red marks on the membranes. The tip of the chin is watery lemon, the three dark marks behind this sooty greenish.

Ulvicola sanctae-rosae : 1 yr., ^{63 mm.} greenish brown on back and tail, becoming brownish green on lower surfaces anteriorly, with about six purple-red specks connected with silver spots, ~~and~~ in a row along mid-side anteriorly.

CAS
19404

Presumably came in with kelp.

64. Paralichthys californicus : 1 yr. (128) R.J.K. Feb '59 Count taken

64A Citharichthys stigmaeus : 4, 3 subad. ? and one mature ♀ 4(81.5-104)

Pleuronichthys venosus subad. and ad. * 3 (35-166) R.J.K. Feb '59 * 1(32) separated out - not P. coenosus

Parophrys retulus : 1 yr.

64 Lepidopsetta bilineata ? (juv.)

1(32.0)

Synbranchius con.

In heraldi the dorsal fin begins on the same plate as the one on which the anus begins, sometimes ~~or~~ scarcely farther forward than the anus. In one exceptional specimen a suture intervenes but the actual distance between the anus and the origin of the D. is less than the length of one segment.

In californiensis specimens the D. usually begins on the ~~first ring~~ ^{1st} ring ahead of the one on which the anus opens, occasionally on the second ring ahead. And as a minimum the dorsal begins a full ring length in advance of the anus.

NATURAL HISTORY MUSEUM
BALBOA PARK
SAN DIEGO, CALIFORNIA

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INCORPORATED 1874

June 22, 1945

Dr. Carl L. Hubbs
Scripps Institution of Oceanography
La Jolla, California

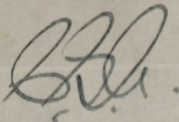
Dear Dr. Hubbs:

The shells you sent us on June 18, Miss
Bristol identifies as ten very young specimens of Acmaea
inocosa H&Y. We are glad to have these.

This is a duplicate copy of the "Santa
Barbara Museum Leaflet" that came to my desk and contains
something about fish, so I am enclosing it.

With best wishes, I am,

Very sincerely yours,



CLINTON G. ABBOTT, Director

CGA.LB
Enc.

Thanked VI: 23

Picked up help
Sunwoodland - Carquentera
collections.



San Diego Museum of Man

BALBOA PARK
SAN DIEGO, CALIFORNIA

July 2, 1945

Dr. C. L. Hubbs
Scripps Institution of Oceanography
LaJolla, California

Dear Sir:

Mr. Clinton Abbott has sent the archaeological material collected by you in the Colorado Desert on to me for identification. Below are the data.

~~Pope Site: 3 sherds (2 different types represented) of Yuman origin.
Type I: Time circa 1450 AD
Type II: Time, between 1300 and 1450 AD
All dates are hypothetical but the sequence of types is accurate.~~

Travertine
Point Site:

4 sherds (3 different types represented) of Yuman origin.
Type II: Time, between 1300 and 1450 AD
Type III: Time, between 1500 and 1800 AD
Type IV: Time, between 1200 and 1400 AD
1 sherd of Desert Cahuilla origin. Time, between 1700 and 1850 AD
1 chip of white rhyolite. Material used in making arrowpoints.
1 charred mammal bone fragment, too fragmentary for identification. Probably mountain sheep or deer, both of which were hunted by the local Indians.

By the way, I cannot locate the Pope site. Is it a station on the Southern Pacific Railroad? If there are any other questions relative to this material and its significance, I shall be pleased to provide the answers if I can.

Yours truly,

Malcolm J. Rogers

Malcolm J. Rogers
Curator

*Thanked
VII. 2. 45
S*

NATURAL HISTORY MUSEUM
BALBOA PARK
SAN DIEGO, CALIFORNIA

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INCORPORATED 1874

May 25, 1945

Dr. Carl L. Hubbs
Scripps Institution of Oceanography
La Jolla, California

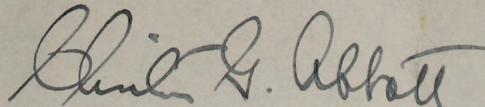
Dear Hubbs:

You might be interested in the identity of the shells you were good enough to donate to us, as given to me by Miss Bristol. Those received from Imperial County were: Anodonta nuttalliana Lea, Physa humerosa Gould, Amnicola longinqua Gould, Hydrobia protea Gould, Rangia lecontei Conrad, Protothaca staminea Conrad. It happens that we previously had these from the same or nearby localities, but have been glad to add yours to our collection as providing an additional collector and date.

As you suspected, the Cypraea spadicea Swainson from north of Mussel Rock, Torrey Pines Park, is apparently a rarity. We had no previous record of this in fossil form in our catalogue. U. S. Grant (Mem., I, San Diego Soc. Nat. Hist., 1931) lists one specimen from the Pliocene from Holser Canyon, Los Angeles County, and one specimen each from Santa Barbara Island, Deadman Island and lumberyard at San Pedro. We are therefore especially glad to have this.

With deep appreciation of your cooperation, and with best wishes, I am,

Very sincerely yours,



CLINTON G. ABBOTT, Director

P.S. I turned the sherds over to Rogers and the snakes to Klauber, and believe that each will report directly to you.

CGA.LB

Ans. V: 29. 1945
corrected data
& position for
Cypraea -
notes
S.

Reptiles collected May 12-14, 1945

Racer (not the red one): San Felipe Valley,
beside San Felipe Creek, DOR, Calif. Highway
78, about 4 mi. from Banner, San
Felipe Co., May 12.

Small desert snake with expanded rostral:
DOR, U.S. 99, Riverside Co. between
Traverturne Rock and Oasis (distance
from county line given on label),
May 13.

Pituophis: DOR, State Highway 111, 1.9 mi.
by road N. of Calipatria, May 14.
Elev. about -175 ft.

Red racer: DOR, U.S. 80, 0.8 mi. W. of
Plaster City, Imperial Co., just
above ancient beach line, May 14.

Uta (alive): on granite knoll, "Boulder
Park", 2.1 mi. by road to U.S. 80
toward Imperial Valley, near
San Felipe - Imperial Co. line
(labeled San Felipe Co. on advice of
Abbott, but in Imperial Co. according
to road signs and Auto Club "Road
Map of Southern Section of California".
Was sunning on granite boulder on knoll.
Data to Klauber with letter of V: 15.
Specimens given to Abbott for Klauber V: 14.

1 specimen of *Rhinobatos productus*,
930 mm. total length, sent to
Calif. Acad. Sci., ix: 14: 1945.
Only a general label given.

1 specimen of *Platyrrhinoides triserratus*
sent at same time. Had no collection
number but locality and date given