(A) Copied for use V:1947

Sta. No. H47-96
[comprising 96 A, B, C, D]

Locality: California: San Miguel Passage, between San Miguel and Santa Rosa Isds. Strictly between Caldwell Pt. and Sandy Pt.

Lat. 34° 00.72 'N.; Long. 119° 16.28 'W. (USC & GS chart 5116, 1937)

Water: clear, salt

Vegetation (See below)

Bottom: sand with gravel, shells + Lithothamnion Temp.:

Shore: rocky and sandy Current: about ¾ knot, to N.

Distance from shore: 1.24 mi. (to Sandy Pt.) Tide: about ~~½~~ high

Depth of capture: (See below) Depth of water: 18.5 fath (by lead)
18 fath (by chart)

Method of capture: (See below)

Collected by: "E.W. Scripps" (Hubbs party) Date: IV:30:1947

Orig. preserv.: (See below) Time: (See below)

Angular fix by Capt. Hammond.

Santa Rosa Isd. N. tang. to 10 ft. Pk to S. tang. ~~to~~ of Sand Pt. L 15°-08 R 17-03

Check angle on San Miguel Isd. 26°35'
to 30 ft. hill to Prince Isd peak.

Position of dive Lat. 34° 00'.6 N. [Dr measure 34° 00'.72]
Long. 120° 16.28 W.

H 47-96A Dive by Frank Haymaker

Invertebrates and algae saved. Some fish notes. Account of dive:

9:11-10:39 a.m. On bottom 9:13-9:54 a.m.

Notes by Haymaker:

Visibility very good, about 50 feet; satisfactory for photography, but not more than half as good as over

Fish Data Sheet-1m-8,'46(9814s)97

best seen at Catalina Island.
Rock outcrops 1' to 1 1/2' in long parallel ridges 12' to 15' apart, with secondary outcroppings in between. The strike on the ridges runs N 30° W (compass). The dip is about 25° [later reported as 30°] toward E. These long ridges look like an aerial view of the Alleghany Mts. — ridge after ridge: very beautiful.
The bottom is of gravel and sand and shell [sample brought up is sand with gravel, shells, lithothamnion, etc.] Some large shells of Pecten.
There are no ripple marks whatsoever. The sand patches are not large enough to produce ripple marks.
On wandering about considerably, bottom was seen to be about same.
On way up visibility became markedly reduced — to about 6'. This message came in at 9:55:15 (left bottom at 9:54, arrived at 20' stage at 9:57). Message repeated soon afterward. [Later Haymaker reported visibility was likewise low at the 20' staging. Particles were drifting by: not at bottom.]

H47-96 (con.)

H47-96A (con.)

Diving notes (con.)

NOTES ON ALGAE:

Algae is growing on outcroppings.

Algae not much thicker than dime at H47-94.

[Sample of algae saved — 2 2-qt. jars in about 5% formalin]

NOTES ON INVERTEBRATES:

Sponges, some very massive, to 18" diam. [with siliceous spicules; large "hunks" brought up but proved poor in invertebrates; small sample saved].

Crumbly "sponge" producing large rounded masses; [worked on effort to bring up [proved to be vermacelli-like calcareous worm tubes]; samples saved].

Isolated polyps of [orange] solitary coral.

Starfish very few. Some collected.

Animal not much thicker [than at H47-94].

Occasional large anemones, to 10" in diameter; very beautiful; effort to collect same failed; tentacles very stout.

Large sea cucumbers — One collected [apparently Stichopus, discarded]. To about 15" long.

INVERTEBRATES SAVED IN ALCOHOL

FISH NOTES (over)!

Obs

[Later note - Fish not seen over 190 as many as in 2 weeks diving at Scripps - but previously were rare there].

FISH NOTES

Fish about 4" long seen lying on bottom. Looks like Leptocottus. No flatfishes.

Fish about 18" long, very tame. Look like fish caught yesterday [Sebastodes chrysomelas]. Yellow belly and yellow spots on back. White mark on D fin, about 2nd ray. Large white bar running down behind eye. Yellow spot about 5th D ray. Yellowish brownish on top. Tail fin almost white at edge. Almost caught in hand.

Small fish (about 3") seen when crawling on bottom. One every 2-3 feet when seen (in a group) ~~but not seen~~ [but not in a school]. Clear white like white agate. Only dark marks are eyes and black margin on D in front. A prominent white spot above + behind each eye. [Later) Haymaker looked at Cryptotrema nicholsii collected at H47-93 and figured they were same. Fish from 93 less translucent - but this was due to preservation].

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Channel Island Trip IV:24–V:1:1947
Carl L. Hubbs

GEOLOGICAL AND ARCHEOLOGICAL NOTES

IV:25–29 West end of Santa Cruz I.

On N side there is wide terrace at perhaps 400 ft. elevation, very conspicuous from N end of Santa Cruz Channel. Apparently this level is continued as a notch-terrace on mountain slope just inland from (E of) Fraser Pt. Here it is doubled, with one notch perhaps 20 feet below what seems to be main one.

Behind Fraser Pt. and continuing for distance S. is a coastal terrace perhaps 100 ft. high. On this is at least 1 midden, in which the Nobles found some chipped implements, a double pointed instrument made of bone, etc.

The base of Fraser Pt. and probably town of the rocky tip is a well-defined terrace about 40 feet high. There are midden here.

~~West~~ of the point is a terrace 5–15 ft. high. On this are several sharply defined sandy

ova

over

middens. On this terrace cobble stones, various other shipping, manos, etc., are common. Shells are heavily Mytilus californianus & Haliotis cracherodii, with some limpets, rock snails, etc. One cowry (Cypraea spadicea was found, with top broken off [presumably to secure meat]. This shell, 2 limpets, 1 snail, 1 small Haliotis and a set of Olivella sampled. Olivella was common especially in piles [use?].

At the tip of Fraser Pt. and of West Pt. there are sharp notches a few feet above high tide line, probably representing the same sea level as the lower part of the point.

Bechers Bay, Santa Rosa Id.

IV: 28-29: 1947

The eroding cliff around 20-40 ft. high is capped by an alluvial apron that rises gradually to the mountain about 1/2 mile back. Some ravines cut deeply into the lower rock part of the cliff. This rock has a strong dip and is truncated by the Pleistocene deposits

Geological & Archeological Notes (con.1)
Becher Bay, Santa Rosa Is., IV:28-29 (con.)

Quaternary erosion surface, which is rather uneven & has an elevation of about 10-30 feet. No definite marine level was noted between the rock & the overlying alluvium. Examined from sea and briefly from base of cliff on shore.

Skunk Pt. is almost entirely drowned in sand.

Bottom study (see notes on 3 dives).

Submarine Canyon running SE from Sta. Cruz Channel (IV:28). Started run desired by Shepard on recording (in cont.) fathometer. Tracings kept for him. First run showed very steep-walled canyon. Work ceased due to mechanical trouble with fathometer, so only upper part of canyon was covered. Some additional fathometer tracings saved, S. of East Point, in connection with dredging, IV:27.

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S. side of Santa Rosa Id. IV:29-30.

Commonly a terrace about 10-50 ft. high, upper part of alluvial fill ~~separated~~ lying above the late Quaternary erosion line.

At China Pt. on S shore (Long 120° 19.8' W) and vicinity there are large middens ~~at~~ and from near China Pt 4. west point E (E Long. 120° 19.3 to 19.75) the alluvial apron is separated from the erosion surface by a soft coquina deposit containing a multitude of Olivella shells and a few shells of other species. A sample of this layer sifted. Some rounded pebbles are included. Clams, limpet, sea urchin spines, etc., included. Care taken to exclude midden material which in places immediately overlies the coquina. No clear-cut beach sand. No clear evidence of conformity with midden deposits. No trace of artifacts in coquina layer, or other indication of human occupation. The layer is only semicontinuous, in fact broken in places. Its width varies to nearly 2 feet.

Geological & Archeological Notes (con.-2)

At China Pt. and at next point to E, beyond a sandy beach, the occupation signs are chiefly developed on and near the points, where shellfish were most readily obtained. The very considerable depth and apparent varied age supports the view that the relative position of beaches and points has long endured. With some evidence of varied levels at each place, the surface deposits formed 2 distinct types, which we called site 1, around China Pt and extending a short distance eastward; and site 2, at the base of the next rocky point, to east.

Site 1 Long. 120° 19.7'–19.9'
Site 2 Long. 120° 19.3'

At each site the surface deposits range from about 20' to about 60' above the sea. At both the deposits are comprised mostly shellfish with mussels (Mytilus californianus) generally predominating. At both black abalone (H. kamtschatkana) abounds as they do on the reef today and red abalone (H. rufescens) are fairly numerous — whereas now they seem confined to deep water. Possibly this indicates a slightly

over

rock

cooler sea during occupation.
A check on the whole mollusk representation would help decide. Limpets Acmaea and Keyhole limpets ~~etc~~ are common at both sites, as are chitons. Some chiton shells are very large & appear to be Cryptochiton stelleri. ~~Too~~ If this is true, and Cryptochiton is absent or very rare at the island (we saw none), further evidence of cool water would be had. Sea urchins & gum (Agg. S. purpuratus) tests are common. In places there are solid lenses of tests and aggd lenses of spines. ~~More than 50~~ more than 50
At site 1 there are well preserved pits & pit houses, at several levels. None were seen at site 2.
At site 1 the few metates found were round-bottomed. Those at site 2 were flat-bottomed. One cooking pit was found at site 2, and 1 suspected pit.
At both ~~the~~ sites there are many core stones, chipping, some hammer stones, manos, etc.
At site 1 a sacrum & leg bone

were found. At site 2 there were some bird skeletons. In site 1 we got the lower jaw of a sheepshead (Pimelometopon pulchrum) and at site 2 a lower pharyngeal of this species. Other fish remains were found.

Much of the material at site 2 seems to have slipped down the sandy soil from a dense somewhat blackish soil layer about 1-3 ft. deep, which is largely filled with midden material. No such layer was seen at site 1.

It would appear that different cultures are represented, without any obvious indications of relative age. Neither site 1 is likely very ancient.

Samples of material from each site were saved & given to S. D. Museum of Man.

The archeological reconnaissance was made with Herbert Mann and peters.

LAND SNAILS

In addition to ~~F~~ mollusk collections along shore & in Indian middens I collected 8 land snails near China Pt., S. shore of Santa Rosa Island, IV:29:1947 — all dead — At adult & are diff

Sent to S. Stillman Berry OCT 6 1947

Summary of fish collections from Santa Cruz & Santa Rosa Islands, IV: 26–30: 1947

Engraulididae: 1. Engraulis mordax mordax
[Sphyraenidae: 2. Sphyraena argentea]
[Molidae: 3. Mola mola]
Serranidae: 4. Paralabrax clathratus
Atherinidae: 5. Atherinopsis c. californiensis
6. Atherinops affinis innalarum
Sciaenidae: 7. Seriphus politus
Embiotocidae: 8. Cymatogaster n. sp. (?)
9. Embiotoca n. sp.
10. Phanerodon furcatus (?)
11. Hyperprosopon argenteum
12. Crossochir koelzi
13. Amphistichus argenteus
14. Micrometrus minimus
15. Rhacochilus vacca
16. Hyperprosopon rubricinctum]
Labridae: 17. Pimelometopon pulchrum
18. Oxyjulis californica.
Girellidae: 19. Girella nigricans
Scorpaenidae: 20. Sebastodes serranoides
21. " rastrelliger
22. " chrysomelas
23. " carnatus
24. " vexillaris
25. " miniatus
26. At least 2 sp. Sebastodes ?sp. (1 seen at Labors.)
Hexagrammidae: 27. Oxylebius pictus
Cottidae: 28. Scorpaenichthys marmoratus
29. Scorpaenichthys ruber n. sp.
30. Artedius lateralis

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31. Ruscarius creaseri
32. Tallandichthys carifrons
33. Sebastes rubellio
34. Hialarchus snyderi
35. Clinocottus analis
36. Monterena recalva
37. Sygnathidae: Sygnathus c. californiensis
38. Branchiostegidae: Caulolatilus princeps
39. Batrachoididae: Porichthys notatus
40. Gobiesocidae: Rimicola muscarum
41. Clinidae: Heterostichus rostratus
42. " Gibbonsia metzi
43. " " montereyensis
44. " elegans
45. Cebidichthyidae: Cebidichthys violaceus
46. Stichaeidae: Anoplarchus purpurescens
47. " cristagalli
48. " Lumpenus sagitta
49. Epigeichthys atropurpureus
50. Phobetor verrucosus
51. Xererpes fucorum
52. Ulvicola sanctae-rosae
53. Ophiodontidae: Ophiodon elongatus
54. Cottidae: Cottus asper

24 families.
54 species.

UW 12:12:1951 7 ½ 9 fm KSN

Gobiidae: 38 Coryphopterus nicholsi

943 taken in 1934
17 are not duplicated
∴ Total = 71 for 2 trips.

1-3 new spp. (evidently) + 2-3 more, new previously recognized.

H47-96 B.

Hook and line, fishing by crew before on bottom
& after diving. Only fish caught:

60. Cantolatilus princeps : 1 ad.
not preserved.

H47-96 C

Surface, seen about 200 yards away, basking with fins flipping; seen by C. L. H. from boat. Effort to approach failed. Certainly a molid and almost certainly Mola mola. (34)

Approximately 10 a.m.

Headed for floating kelp [frequent habit according to Herb Mann], but not found there.

H47-96 D

Copied for U.S.C. 11:18:1947

Floating masses of kelp (Macrocystis) including one holdfast; brought quickly into skiff; about 10:30 a.m.

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(vol)

Saved:

To Dawson VIII-6-1947

Samples of attached algae, in 5% form. John. borax.

Sample of invertebrates, in alcohol.

3 fish, in 10% form + borax:

53. Sebastodes _____ : 1 yg.

Largely silvery, with some metallic blue, becoming tan on back; with blackish green cross bars.

Lower part of head silvery white.

[VIII2] Light area between dorsals suggests sp. in Italy ?? Bird Rock.

55. Scorpaenichthys marmoratus :

Typologic-stage yg. Bright silvery; darker on upper back and with definite blackish saddles.

[Stepped on in going after more Italy.] Disc. 6 April, 1961 R.H.R.

R.J.K. Feb '59

61. Gibbonsia metzi _____ : 1 yg. (24)

Brownish fish, with obscure olive lines much disrupted. D + A with alternating bars of red-brown and clear.