

Notes labels  
say some Amos

To UCLA V. 12:53  
Sta. No. H46-234 (1552-46)

Locality: México: Acapulco Harbor at ~~Amos~~ Hornos,  
Suarrow. Near Acapulco. At base of  
San Lorenzo Reef

Lat.  $16^{\circ} 51' 24'' - 28''$  N.; Long.  $99^{\circ} 54' 32''$  W. (USC & GS chart ~~140~~ 0872, 1941.)

Water: clear, salt

Vegetation: little, most encrusting + very short growth

Bottom: rocks with slight reef or sand Temp.: warm

Shore: sand beach with rocky pt. Current: slight

Distance from shore: to 150 ft. Tide: low (about 1')

Depth of capture: various Depth of water: to 2 fath.

Method of capture: derrick roost with dip-net and goggle fishing

Collected by: Zaca Exp. (Hubbs & Flynn) Date: IX: 5: 1946

Orig. preserv.: 10% form + borax Time: 1:30 - 5:30 PM

8. Opirothopterus

large series - school moved into  
cove behind rocks + fish died  
for some distance down the  
playa - must be a very delicate  
fish. Th half grown are  
semi-transparent with a more  
prominent silvery stripe; the  
adults are more opaque + more  
uniformly silvery - Large series  
of the sp. - ad. Adults with  
basal 2/3 of C + base of A  
yellow. "Anchoveta"

✓ Harengula thussina

4 hd. gr. schiffeldi

✓ Anchoa sp. - died on sand as  
prey or moved out. Lateral band  
brilliantly silvery. "Sardinia de Belis"

26. Gymnothorax ~~2 yr.~~ 1 yr.

cryptic color?

Same sp. as one of larger?  
Pale <sup>water</sup> lemon-gray muzzles; margin of D + A  
yellow, becoming brighter posteriorly;  
main part of body blackish  
purple, becoming olive on belly.  
Near submerged rocks.

Gymnothorax sp. : 1 yr.

Body pale purplish, with fine gray toward  
border. Muzzle dark.  
Near submerged rocks.

Gymnothorax : 5 lg. sp. - subad.

Seem to represent an irregular color  
change with age. 4 are very dark,  
with more purple than greenish,  
but largest is greenish, particularly  
toward D on D. fin. Spots  
increase in no. but decrease in  
size + intensity with age, & the  
largest, except that next to largest  
has the light spots obscurest.  
Difficult to find. Largest has  
light chin; smallest has light  
area around mandibular pores.

Gymnothorax sp. 4 lg. sp. - lg. sp.?  
Near submerged rocks.

very tiny fin?

Light markings varying from tan  
in smallest to purplish gray in  
largest. Each markings blackish  
purple. Fin is all more  
tan than others. Near submerged  
rocks.

26 (con.)

H46-234 (1552-46) CON. 1

Muraena lentiginosa

Series of 12. 12 yr. on submerged rocks + on sand nearby. Spots on purple-black streaks, vary from tan to bluish white; spots a fine may to a brighter tan; ground color light brown.

31-nest

32. Chaetodon \_\_\_\_\_: 2 hl. yr.

"Pampar" 1 from channel-like pool, 1 from bottom over submerged rocks. Small, very pale lemon, largely pale purple, both with purple black bands. Median light band on C. most lemon yellow of markings.

33. Xesurus punctatus: series of 2, a few

"Bacoco" better, "machin" 1 from tide pool, mostly over or near submerged rocks. Colored bands like ad., but head bands not prominent. C to C. ped. bright gold. Light bar behind eye with orange. Body light brown to blue white.

35. Epinephelus \_\_\_\_\_: 1 yr., brownish

yellow, with blue-white, non-metallic spots. Fins yellow brown; D<sub>2</sub>, C+A with gray border. Over submerged rocks.

Epinephelus cabrillaformis: 16 lg. yr.

"Cabrilla" young with body gray green to purple brown, with bluish silver spots. P<sub>1</sub> pale yellowish toward base, orange

yellow submarginally, gray on edge. Light-  
striking on body gray. A. margin  
red to black, with or without narrow  
white edging. D yellowish with red  
border + a light edge. E yellow with a  
red wedge-like border above + a  
ridge, red to black mark below.  
Largest with red ~~mark~~ nearly all  
occluded by black.

Rypticus 2, over submerged  
~~rock~~ rocks. Body purple with  
bright tan spots + indefinite tan  
vermiculation. Face tan below,  
yellow tan above

38. Lutianus sp. 1 large y.

Pargo  
de  
Piedra  
Most of head + body yellow green; body  
with blue silver bars, not very bright.  
Bread + below with silver-red, particularly  
below bars. A with this color in  
front. P<sub>2</sub> with some of this color as  
well as black. Other fins, + posterior  
part of A, lemon.

40. Eurypterus ~~varianus~~ Atherinella eriarcha several adults, from  
tide pools + over submerged rocks and  
sand. Certainly not identical  
with Socorro specimens. <sup>Translucent</sup>  
with silver stripes. 7(34-48)

Polydactylus approximans: series of  
large. Held quickly over sand  
as pair spread.  
"Boca dulce"

H46-234 (1552-46) con. 2

42. Caranx \_\_\_\_\_ : "cocinero"

1, had been speared. Blk above, some  
gilt below P+C purplish P<sub>2</sub>+A  
pale yellowish. Resemble yellowtail  
& built and is locally thought of  
as "a sort of yellowtail".

Caranx \_\_\_\_\_ : 3 yg. - Bars

more purple & darker than in  
common sp.; eyes yellowish, not  
red; lower sides brassy, especially  
in smallest one, but not lemon gilt  
as in common sp. Opercle spot  
much more intense. Scales pale  
bluish gray w/ 2 or 3 specimens.

mostly over sand bottom | Caranx \_\_\_\_\_ : "jural". Small  
Series, lg. yg. - blk. gr. Young

44. Haemulon \_\_\_\_\_ : "Ronco blanco"

A common local food fish.  
Very silvery, with an undervest of  
olive dorsally & bright silver  
streaks on scale rows. P<sub>2</sub>+A  
with a trace of amber. Over sand  
bottom.

46. Umbina \_\_\_\_\_ : 1/2 blk. gr.,  
over sand.

See last p.

31. Holocentrus \_\_\_\_\_ : 4 blk. gr.?

From over submerged rocks.  
Scarlet, with some green in margins of

"M. ang. am. ta." - but  
earlier this was used for  
another reddish fish named:

scale pockets & in lengthwise streaks  
between scale rows, and with centers  
of scale pockets not silver. Head  
largely red, with one spot greenish  
gilt near opercular margin. Fins red,  
especially deep on submedian bands, when  
the color goes over the rays as well as  
membranes; a little ~~green~~ dusky  
green toward C edges.

M. ang. am. ta. : series, ~~at~~  
postlarvae (large yg. with prominent  
spine, snout) - hl. yg. Smaller  
pearly red, with considerable red on  
fins, particularly near A spine, near  
P spine & near C borders. With  
age the pearly red on body fades out  
largely; side brown on face. Body  
speckled with blackish olive; red  
on fins becomes dusky. Scales of  
body into vertical lustrous silver-blue  
streaks. A few in tide pool,  
others over submerged rocks.

48. Pomacentrus : ser., yg.  
to ad., changing vastly with age.  
At 25 mm. the upper parts are brilliant  
blue down to a line connecting lower  
part of eye & lower part of main  
D. ocellus, with a posterior barlike  
extension extending downward & backward  
to a blue dash above the smaller  
ocellus on top of C. peduncle.



Then are brilliant blue spots, more or less in rows on both the blue & yellow parts of the body.

Pomacentrus \_\_\_\_\_: series, yf. to ad., changing very little with age. Specimens as small as 21 mm. have no scales. Purplish bars as well as the more or less gilt found color bears silver blue-green spots, not very conspicuous.

Microgaster dorsalis: 6 large y. - sub. ad. - bluish black. Young 49 to 64 mm. with bright blue spots, including 3-4 in a row on the back, the last in posterior axil of D. These spots are disappearing at 85 mm. and lost at 136 mm.

Abudefduf <sup>or Chromis</sup> \_\_\_\_\_: 18-7 25 mm - only one taken - many adults seen over the rocks later on. Rather entered after 100 mm - present on one resistant the one yf. is the with a yellow green back, with crossed by purple black stripes.

50. Halichoeres \_\_\_\_\_: series, yf. to ad. Larger one thought is field to be distinct species, but on the boat seen just yf. development series, in which the strong D scales of yf. become a dusky blotch, the orange gilt markings on the fins (com.)

"Lora"  
"d. eiferanti"  
"Lara"



dusky, the body deeper. The <sup>D</sup> fins become bare as a result of the color changes.

53. Scorpaenidae \_\_\_\_\_ : 5 lg. yg. to

bl. gr. or ad., over submerged rocks. Young with ~~cream~~ broad cream band below end of D, rest of body purplish brown. C with 3 blackish or 3 cream bands, the last with orange. Adults with this band brightest but not distinct. The body a mixture of mid brown and cream or gray.

~~Scorpaenidae~~ Scorpaenidae \_\_\_\_\_ : 3, ad. (1),  
from one submerged rock. Bands with some coralline color, on a lemon cream base. Lower part of P, lemon yellow. Gilt brown bases across chin mandible. Colors not bright.

with some coralline color, on a lemon cream base. Lower part of P, lemon yellow. Gilt brown bases across chin mandible. Colors not bright.

58. \_\_\_\_\_ : 3, prob. ads.

Body <sup>and head</sup> with tricolored bars (yellow brown down center + black brown on each side, separated by pale coralline streaks.

C deep brown black with cream border.

D dusky to black. On sand bottom near rocks

59. Bathygobius separator : 2 bl. gr. + 1 ad.

1H. jr. pale, with greenish bars on a cream base. Ad. purplish brown with greenish gray.

over

60. Arbacia petersii

(Fowler's Prinicola assator?)

Seen above water on or island.

mouth caught in tide pools.

Bright coralline with ~~green~~  
brownish green cross bars on back.

lower half of sides with fine cross  
baring and reticulations of green +  
silver gray. D often yellow.

C yellow, green a black medially;  
with a light base. Both light + dark  
bars appear reticulated when  
magnified.

? ~~Arbacia~~ Arbacia : 2 - ag?

Presumably over a reef submerged  
rocks. Body a ~~bright~~ lavender  
pink, with weak greenish brown markings;  
slightly pink even on lower part of  
C. peduncle. C with brown bar at  
base and a blotch of pink medially.  
3 bars of blackish green on lower  
part of head - Side of trunk with  
fine bars + reticulations crossing a  
silver streak.

Cotylo wordsi : blackish green  
bars with <sup>to</sup> cream to slightly  
coralline crossbars. Top of head  
pinkish to cream. <sup>in</sup> Posterior  
light areas of body the fainter.  
D + A roots with a light edging.  
4 abs; over sand and submerged rocks.

60 (con.) Dactyloscopids - All on  
 sand bottom, mostly when very shallow.

\_\_\_\_\_ : 2 ad.,  
 with relatively large, non-telescopic  
 eyes. Upper parts waxy, lower parts  
 nearly colorless. Cornua like back  
 speckled with black. No red.  
 Opercles and cheeks bright silvery.

\_\_\_\_\_ : 6, age?  
 7 white, squarish dorsal saddles,  
 separated by more or less orange  
 blocks and enclosed below (in perfectly  
 in 1 specimen) by dark line  
 connecting adjacent dark saddles.  
 A more or less bright <sup>orange</sup> spot  
 near occiput, in first D. cross bar  
 Before this bar is a broad shield-  
 shaped area.

\_\_\_\_\_ : 17,  
 hl. yr. - ad. 9-11 light saddles on  
 back, separated by amber to  
 orange saddles. Orange specks  
 on top of head. Light area  
~~on top~~ on occipital region poorly  
 developed or narrow. Saddles  
 with a dark spot directly below  
 the light spots.

61. Clinids were not distinguished afield.  
 A considerable no., but including only 1  
 of the large sp. (Labrisomus xanti?)  
 Came from tide-pools, the rest mostly from

over submerged rocks and (dead) fungus  
sand surface nearby. Most from the  
tide-pool were not brightly colored  
and some if not all & nearly all  
were the one called Malacoctenus  
zoniifer below.

Labrisomus xanti ? 19 lg. yg. - ad.,  
for habitat see above. Varying from  
light yellow to dark greenish brown,  
none particularly bright. Spot  
on both D<sub>1</sub>s and on A are often purplish  
or orange; tend to be clustered in 5 bars  
on D<sub>1</sub>, and in a few oblique bands on  
D<sub>2</sub>. Younger ones have ocellus rather  
strong near front of D<sub>1</sub>, and body markings  
mostly in lengthwise streaks; adults  
have only a dusky blotch in place of  
ocellus and body markings mostly in  
cross bands. There is a slow, mixed  
transition. Bright silver to blue  
flecking, peppery, on lower side of  
face, also a ring around lower half of  
eye. Blackish markings on face  
diagnostic. Teardrop markings on C  
neck band is usually cream or  
yellow; the pattern here is characteristic.  
Head filaments are pale purple.



primary longitudinal stripes. A gray, green, yellow, orange, with a series of pale "windows". Lower part of head often yellow. Body bands may stop at D base, go out just way a cross fit, an anterior yellow base.

Fabrisomus n. sp. : 1 ad.,

looking much like Pocatichechys camurus. ~~But~~ Presumably from submerged rocks. Behind vertical from P, base body is horizontally striped with <sup>dark</sup> brownish purple and pale purple, about ~~24~~ 26 stripes in all, quite regular; mixed with brown speckling, hardly aligned with bars.

Before P, color abruptly change, with no stripes. Anterior back is largely brown-orange, top of head with more green, with 2 cross lines of red-brown behind ~~face~~ are about 3 between eyes. Snout speckled with green + purple red. Lower part of head waxy brown-lime. Upper lip red anteriorly, green behind, each area with 1 strong blue cross streak. Belly pale purplish. A bright gray streak behind & below eye, bordered by blackish red-brown. Opercles pale purple becoming blackish near base of mouth & with a large V-shaped light streak. D, with a light

submedian streak, strong ~~before~~ ~~part~~  
~~specie~~ before 3<sup>rd</sup> spine, a subventral  
irregular row of purple-black markings  
& a few distal specklings. D<sub>1</sub> & A & C  
with wavy & blackish specks on  
rays. P, with a jet black basal  
crescent; and some wavy color on  
rest of fin; P<sub>2</sub> purple. ~~Lower~~  
side of.

*Enneanectes carminalis* (?)

Parachanna \_\_\_\_\_: eye cherry red  
Body almost black, but with purple  
& brown mottling, in 2 specimens:  
other is brown above, purple-green  
below, with cross bars fading  
from black near head to brown  
near C. Darker bars on A hardly  
evident in 1, reddish in 2; D bar  
of mixed colors. Ocellus clear.  
2<sup>nd</sup> silver speck on C. peduncle, 1  
above & 1 below. From near  
submerged rocks.

Emblemaria (?): 2 a few sand bottom  
near submerged rocks (dead here).  
Purple-black, becoming brown on  
head. Body with ~~irregular~~ light  
bars with darker marginal lines. Top  
of head & D fin anteriorly with frequent  
speckling, bright blue; D posteriorly  
with ~~at 6~~ <sup>at 6</sup> oblique dark stripes, extending  
backward & slightly upward. Anal  
plain; brown-purple at base of

becoming black & within the colorless border. C black near base in a crescentic area merging into body, which otherwise clear. (Body with a blackish axial line.) P<sub>1</sub> light purple except for dark base. P<sub>2</sub> black-purple. Side of head behind eye with a large brown-black spot with a brilliant & dreamy-silver marginal line. ~~Oxygen~~ Branchiostegal membrane blackish. Mandible purple-gray and tooth black. Cross marks. Gill membranes with 4 metallic blue-silver spots, on anterior, a pair (00) submedially and 1, larger, posteriorly.

~~Blennius~~ - The rock stepping goby seen also on island. From tide pools

*Syntacanthus*  
*chrostictus*

large. Some seen out of water. Purpleish brownish & coralline in main color. Head often greenish. Body with bluish silver markings & sometimes with bright blue cross lining.

~~Cynoscarte~~ *Hygrosoma* *unifasciata* (Blennius like)

small esp. bl. gr. - ad., from tide pools & about submerged rocks. E. Head purplish brown, with black-brown and waxy yellow-green markings on anterior parts - obscurely evident in yg., moderate in large ♀, bright in ad. ♂. Included are over



61 (con.)

indefinite D. barring on ~~the~~ tail; on trunk a dark bar ~~very~~ posteriorly + a track on above P, base - a light metallic ring about a dark spot behind eye. P, weak clear above (gray in ♀, greenish in ♂s, blackish below). A faint creamy V on ~~the~~ pair of bars, ~~diverging~~ forward on chin.

A golden ring around pupil.

Ogilbia sp. 2 h. gr., 5 ad. ♀ + 10

ad. ♂s - obviously a small sp., from sand bottom (dead or dying) near submerged rocks. Brown, becoming

more a ~~light~~ <sup>less</sup> waxy yellow near A and on belly. Basal

part of D ~~is~~ in adults and in

some basal part of A dark brown; outer part of fin clear, slightly yellowish. C rays dark. P, yellowish.

To B.W. Walker  
 IV. 19. 1952