

SIO 73-291

State or Country: Costa Rica, west coast Field No. MV 73-I-87

County: Map: HO 1034 ed 1938

Locality: in mouth of Golfo de Nicoya

Overall position Lat. $09^{\circ}32.0' \pm 32.7'$ N., Long. $84^{\circ}(50.4' - 52.3')$ W.

Water: blue

Vegetation:

Bottom: irregular, but relatively smooth for area.

Cover:

Temp.:

Shore:

Current:

Dist. offshore: 14 → 12 naut. miles

Depth of capture: bottom

Depth of water: holding 195-158 fath.

Collected by Carl H. Hubbs & party on SIO R/V Alexander Agassiz

Tide: on cruise 7303-E

Date: 14:21: 1973

Method of capture: 25-ft. semiballoon otter trawl

Orig. preserv.: 10% buffered formalin Time: holding 1657-1712 hrs CST
overall 1642-1735 hrs CST

Try somewhat of a desperate gamble as bottom in general is very irregular.

Sometime, probably soon after net hit bottom, boards flipped over to close net (which happily wasn't damaged).

On cleaning net several small pieces of wood were found, along with a few examples of *Brotuloides* (first for area?). Specimen was promptly injected with 10% formalin and label attached.

Carl H. Hubbs.

61 *Cherublemma emmelas* 1(201)

State or Country: Costa Rica, west coast Field No. MV 73-I-88
County: Map: HO-1034 ed. 1938
Locality: 12.0 nautical miles south of Isla Blanca (first entrance to Golfo de Nicoya) (930) (1963)
Lat. 09° 19.5' N., Long. 85° 04.5' W.
Water: moderately blue
Vegetation:
Bottom: rugged topography
Cover: Temp.:
Shore: Current:
Dist. offshore: see above Stream width:
Depth of capture: bottom Depth of water: 1050 fath. GPR
Collected by Carl L. Hubbs & party on S/R/V Alexander Agassiz
Title: on cruise 7303-G Date: 1.V. 21-22.1973
Method of capture: free-vehicle trap/setline combination*
Orig. preserv.: Time: 2235-0426 CST

* Operation planned and supervised by Ronald T. McConnaughey. Setline with 25 hooks, baited with squid, set 1m apart above McConnaughey 3-chambered trap baited with mackerel and squid.

Seen by radar visually beside ship 0426 Abound 0426 ~~0426 0637~~

1st top hook bent. No fish on line or trap, and no other bait molested.
Bait in 3rd chamber yields amphipods.

Gear apparently arose early, before predation. McConnaughey reports a weak point in the magnesium link.

Carl L. Hubbs

Country: Costa Rica, west coast Field No. MV 73-I-89
County: Map: HO 1034 930 ed. 1968 963
Locality: 10.5 nautical miles south of Isla Blanca (west
entrance to Golfo de Nicoya)
Lat. 09° 20.9' N., Long. 85° 05.5' W.
Water: moderately blue
Vegetation:
Bottom: rugged topography
Cover: Temp.:
Shore: Current:
Dist. offshore: see above Stream width:
Depth of capture: bottom Depth of water: 873 fath. GPR
Collected by Carl L. Hubbs & party on SIO R/V Alexander
Agassiz on cruise 7303-G Date: 1V:21-22:1973
Method of capture: free-vehicle trap/selline combination *
Orig. preserv.: Time: 2300 - 0637 CST

* Operation planned & supervised by Ronald R. McConnaughey. Setline with 25 squid-baited hooks set 1 m apart above McConnaughey 3-chambered trap baited with mackerel & squid.

Noticed surfaced at 0553 (probably ray run).
Aboard ship at 0637. Line again a flop.
Some ^{small} amphipods in third (baited) chamber
of trap (preserved by Spencer R. Lake).

Carl L. Hubbs.