

SI073-281

State or Country: off Costa Rica west Field No. MV 73-I-70
 County: coast Map: NO 21 026, 1972
 Locality: ca. W of Cabo de Santa Elena, northern
 Costa Rica 51.7' 22.2'
 Lat. $10^{\circ}(50.2' \rightarrow 53.2')$ N, Long. $86^{\circ}(20.0' \rightarrow 24.3')$ W.
 Water: bluish, somewhat turbid; dissolved oxygen at
 Vegetation: bottom, 106 fm., 0.45 ml/L. Carpac chick 4.64
 4.61 ml/L. ml/L.
 Bottom: flat; slight slope; black mud.
 Cover: Surf. Temp.: 80° F (bucket thermometer)
 Shore: Current: constant
 Dist. offshore: 22 $\rightarrow$ 21 naut. mi. Stream width: holding, 10.6
 Depth of capture: bottom Depth of water: overall 107 to 106 to?
 Collected by Carl L. Hubbs party on SIO R/V Alexander Agassiz
 TAC on cruise 7303 G Date: 14: 18: 1973
 Method of capture: 25-foot semiballoon otter trawl (fishing well)
 Orig. preserv.: 10.9% Time: holding 17.12-17.27
 10.00 m wire out overal 16.49-ca 17.35?

A large collection, with only ca. 3 large
 plastic trays filled, because of lesser
 number of Pleuronichs. Fish the time
 perhaps too bulky put in four 5-gallon
 cans only comfortably filled. Some
 specimens used by Richard S. Lee for
 heart and gill and other studies and
 some utilized for parasite studies by
 Mary Hanson Pritchard and for Elmer
 Noble, by L. Michael Moser (all fish then
 studied to come to SIO for identification).
 All larger ones to be injected.
 One very young *Contusus* put in a small
 vial blown in one of the containers.

MAY 14 1973 Richard S. Lee reports having retained
 at UCSB for gill and heart measurements:
 Physiculus - 6 Zoarcidae - 4
 Serranidae - 3 Ederichthys - 2

Carl L. Hubbs
 62 *Physiculus rastrelliger* 3125 (77-150.5)
 62 *Merluccius* sp. *ANGUSTIMONUS* 4 (134-146)
 26 *Aniosoma gilberti* 7 (183-220)
 26 *Ophichthus frontalis* 1 (500) T.L.
 53 *Pontinus sierra* (lot split-2 jars) 183 (22-193)
 43 *Trichiurus nitens* 4 (310-370)

- 64 *Symphurus callopterus* 1(110) 2(103-110)
61 *Neobythites stelliferoides* 2(131-165)
64 *Monolene asaedai* 7nc 1(112)
35 *Pronotogrammus eas* 13(87-127)
64 *Symphurus oligomerus* 23(86.2-99.8)
53 *Pontinus* sp. 4(161-175)