

SIO 73-270

State or Country: off west coast, Guatemala Field No. MV 73-I-53
 County: Map: NO 21023+21026 1954/1951
 Locality: south of Campeche, over north slope of Middle America Trench
 Lat. 13°32.0' N., Long. 92°02.0' W.
 Water: deep, clear blue To Lat 13°15.3' N., Long. 92°04.5' W.
 Vegetation: → 13°23.6' N → 92°03.2' W

Bottom: rolling topography
 Cover: ~~surge~~ Temp: 86.0°F Cat 1715 hrs, with bucket thermometer
 Shore: Current:
 Dist. offshore: 45-57 naut. mi. Stream width:

Depth of capture: attempted 2000 m* Depth of water: 2100-2512 fm, holding
 Collected by Carl L. Hubbert party on SIO R/V Alexander
 Agassiz on cruise 9303-G Date: 1V:14:1973
 Method of capture: Sigsbee-Kidd 10 ft. Midwater Trawl, meter-pot, etc.

Orig. preserv: 10% buffered form. Time: 0020-1640 hrs. EST
 Length of haul (straight line) 12.5 miles - 182 overall
 *Length indicated by Benthos Recorder

Overall depth range 1640-2785 fathoms
 Operation programmed by Robert L. Warner
 Paid out fast to 1140 hrs, start holding to start of winding at 1540, 84 hrs. holding, at 5500 m. (wire out), overall time, 7 hrs. 20 min.

Objective to check degree of depletion if any, fauna in the lower part of the oxygen minimum; pay-out & haul-in fast to minimize contamination.

Before holding at 1140 depth less; after start of haul-in at 1540 considerably greater.

Course shifted a few miles to right before gradual correction, hence, total distance from start exceeded the straight-line from start to finish of haul.

Excessively poor catch for so long a pull indicate very little fish life deep below the oxygen-minimum belt. Cyclothone acclini dens for prior trial would be expected to occur within that belt. It is again by far the dominant fish species by numbers. Considerable no. of Diaphus pacificus. Choicest item are a fine adult of Leptichthys, which I promptly injected and preserved (hardened) in alcohol over

over

and a free-living ♂ ceratoid.

A moderate number of invertebrates.

One Scopelengys, ~~but~~ several ~~melanophacis~~
melanophacis, Vinagreia, and
Diapirus pacificus banded for
parasites and returned individually
numbered for identification. Kept in
field with the other fish, in a one-gallon jar
not full of fish.

Collection was largely sorted or checked
by me using a good head lens, particularly
for small fish of early stage. Object in mind
is to get together a faunal list with
significant nos. of fish that may
be regarded as have been netted
below, within, and above the oxygen-
minimum layer as determined by our
analyses, run by Charmion B. McMillan
in collaboration with Robert L. Wisner.

8 Leptochilichthys agassizii 1 (158.5)
25 Diapirus pacificus ~~168~~ (12-32) ~~tg. series~~
170

25 Benthosema panamense 2 (27)
25 Diogenichthys laternotus 62 ~~55~~ (10-27)
25 Scopelengys tristis 4 (26 ~~2~~ ~~68~~ - 144)
25 Lampanyctus hubbsi 1 (62)
25 Lampanyctus parvicauda 1 (35)
25 Lampanyctus omostigma 9 (18 ~~13~~ - 74)
25 Lampanyctus idostigma 2 (51-54)

Sail L. Hubbs

State or Country: (continued) SIO 73-270

County: Map: 1

Locality:

Lat. N., Long. W.

Water:

Vegetation:

Bottom:

Cover: Temp.:

Shore: Current:

Dist. offshore: Stream width:

Depth of capture: Depth of water:

Collected by

Tide: Date:

Method of capture:

Orig. preserv.: Time:

10 Vinciguerria lucetia 33(11-37)

25 Lestidiops neles 1(84)

31 Scopelogadus m. bispinosus ⁷⁴~~71~~(~~58~~-62)

31 Poromitra crassiceps 1(102)

31 Poromitra oscitans 3(54-62)

31 Scopeloberyx robustus 1(29)

31 Melamphaes acanthomus 2(73-84)

10 Idiacanthus antrastomus 3(48-106)

10 Bathophilus filifer 2(28-67)

10 Stomias atriventer 1(92)

9 Bathylagus nigrigenys ¹⁵~~105~~(~~53~~-60)

65 Melanocetus sp. (♂) 1(18)

31 Melamphaes spinifer 2(20-27)

10 Cyclothone acclinidens 721(14-45)

(over)

10 *Cyclothone atraria*

1(41.5)

10 *Chauliodus barbatus*

1(37)

24 *Ophichthus* sp. (lepto.)

1(29)

State or Country: off W coast of Guatemala Field No. MV73-I-54
County: south of Champetice, Map: NO 21023121036 1972/1971
Locality: ~~over~~ N slope of Middle America Trench

Lat. 13° 26.7' N, Long. 92° 05.5' W.
Water: deep blue
Vegetation: clear
(position following a good star fix)

Bottom:

Cover:

Temp.:

Shore:

Current:

Dist. offshore:

47.5 nautical mi

Stream width:

Depth of capture:

bottom

Depth of water:

1795 fathoms

Collected by

Carl L. Hubbs & party on SIO R/V Alexander

Tide:

Agassiz Cruise 7303-G

Date: IV 14-15-1973

Method of capture:

free vehicle trap & setline combination*

Orig. preserv.:

10% buffered formalin

Time:

overall 2045-0510 hrs EST

* 25 hooks set 1 m. apart vertically, plus another ~~being~~ hung at my suggestion in the trap (believing that *Coryphaenoides abyssorum* holds to the bottom). 3-chambered McConnaughey trap baited with mackerel ~~and squid~~. This set equipped with radio transmitter, channel B.

Radio was heard when turned on at 0230 hrs.
Only bait gone was on hook attached to trap.

Trap contained only 1 amphipod.

Operation planned & operated by R. R. McConnaughey

Carl L. Hubbs

10 Vindiqueria lucetia.

33(11-37)

State or Country: W coast of Guatemala Field No. MV 73-I-55
~~County~~: South of Champerico Map: 21023 & 21026, 1972, 1971
Locality: on N slope of Middle America Trench

Lat. 13° 20.7' N., Long. 91° 05.5' W.
Water: deep blue & clear
Vegetation: _____

Bottom: locally flat, generally rolling
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: 52.5 nautical mi. Stream width: _____
Depth of capture: bottom Depth of water: 2300 fathoms
Collected by Carl L. Hubbs & party on SIO R/V Alexander
~~Title~~: Agassiz (cruise 7303 G-) Date: 11/14-15/73
Method of capture: free-vehicle trap & setline combination
Orig. preserv.: no catch Time: 2134 - 0555 hrs
(overall) CST

25 hooks set 1 m apart vertically, the lowest just above the McConaughy 3-chambered trap (baited with mac kernel & squid). This set conventional with radar screen & red flag.

No catch on setline or in trap.

Operation planned & operated by Ronald R. McConaughy

Carl L. Hubbs.

State or Country: off W coast of Guatemala Field No. MV 73-I-56
County: S of Champereiro on Map: NO 21023 & 21026, 1972/1971
Locality: N Slope of Middle America Trench

Lat. $13^{\circ} 11.5'$ N., Long. $92^{\circ} 05.5'$ W.
Water: deep blue and clear
Vegetation:

Bottom: irregular

Cover: Temp.:

Shore: Current:

Dist. offshore: 6.1 naut. miles Stream width:

Depth of capture: bottom Depth of water: 2660 fm.

Collected by Carl L. Hubbs & party on SIOR/V Alexander
Agassiz (cruise 7303 G.) Date: IV: 14-15: 1973

Method of capture: free-vehicle trap & setline combination*
Orig. preserv.: no catch Time: overall, 2200 - 0632 hrs.
CST

* 25 hooks and McConnaughey 3-chambered
trap handled as for MV 73-I-55.

No fish caught on line; nothing in trap.

Operation planned & operated by Ronald R. McConnaughey

Carl L. Hubbs

State or Country: off W coast of Guatemala Field No. MV 73-I-57
County: Map: as for MV 73-I-55
Locality: deep on N slope of Middle America Trench
Lat. $13^{\circ} 09.5'$ N., Long. $92^{\circ} 05.5'$ W.
Water: deep blue & clear
Vegetation:
Bottom: irregular
Cover:
Shore:
Dist. offshore: 62 nautical miles Stream width:
Depth of capture: bottom Depth of water: 2840 fath.
Collected by Carl H. Hubbs + party on SIO R/V Alexander Agassiz
Tide: on cruise 7303G Date: IV. 14-15. 1973
Method of capture: (gear same as for MV 73-I-55)
Orig. preserv.: no catch Time: 2220 - 0705 hrs EST

Uppermost hook gone; bait gone on about 5th
hook down.

No fish caught; nothing in trap.

Operation planned & operated by Ronald R. Mc
Connaughey

Carl H. Hubbs

State or Country: off W coast of Guatemala Field No. MV 73-I-58
County: S. of Champereis, Map: a. for MV 73-I-55
Locality: near bottom of Middle America Trench

Lat. $13^{\circ} 08.0'$ N., Long. $92^{\circ} 05.5'$ W.
Water: deep blue & clear
Vegetation:

Bottom: irregular

Cover: Temp.:

Shore: Current:

Dist. offshore: 63 naut. miles Stream width:

Depth of capture: bottom Depth of water: 2950 fath.

Collected by Carl L. Hubbs & party on S/O R/V Alexander Agassiz

Tide: on cruise 7303 6

Date: 14-15-1973

Method of capture: line with 25 hooks on for MV 73-I-55; 2 plastic

Orig. preserv.: no catch Time: 2233- LOST minnow traps

Operation planned & operated by Ronald R. McGinnis-ghey

This set never rose; possibly, the 2 minnow traps in tandem interfered somehow. Search was continued until 1200 midday, when the extremely placid sea would have made checking by radar extremely easy.

Carl L. Hubbs

State or Country: _____ Field No. MV 73-I-59
County: _____ Map: as for MV 73-I-55, 1
Locality: on bottom of Middle America Trench, barely on S
slope of acute bottom notch
Lat. 13° 05.2' N., Long. 92° 05.5' W.
Water: deep blue & green with some dirty plankton bloom
Vegetation: _____
Bottom: in sharp V at bottom of Trench
Cover: _____ Temp.: _____
Shore: _____ Current: _____
Dist. offshore: 5.5 miles (naut.) Stream width: _____
Depth of capture: bottom Depth of water: 3115 fathoms
Collected by Carl L. Hubbs & party on SIO R/V Alexander Agassiz
on cruise 7303 & Date: IV. 14-15, 1973
Method of capture: gear same as for MV 73-I-55
Orig. preserv.: no catch Time: 2258 - 0745

Nothing on setline or in trap

Operation planned & operated by Ronald R. McConnaughey

It would seem highly probable
that the bottom below the
oxygen-minimum layer does not support
any considerable numbers. The oxygen
content however would seem to be
less reduced than
about 2000 fms. Carl L. Hubbs
Marias.