

**STATUS OF *Neoscopelus*  
(NEOSCOPELIDAE) IN THE  
GULF OF MEXICO WITH  
DISTRIBUTIONAL NOTES ON  
*Caulolatilus chrysops*  
(BRANCHIOSTEGIDAE) AND  
*Etelis oculatus* (LUTJANIDAE)**

While aboard the National Marine Fisheries Service FRS OREGON II in August 1983 (Cruise 136) we were able to gather data on four species of fishes, enhancing our knowledge of the Gulf distribution and relative abundance of these animals. Bottom longlining produced two reef-associated species thought to be rare or absent from the northern Gulf of Mexico, the goldface tilefish (*Caulolatilus chrysops*) and the queen snapper (*Etelis oculatus*). Bottom trawls yielded two neoscopelids, *Neoscopelus macrolepidotus* and *N. microchir*. The captures of both species of *Neoscopelus* in consecutive hauls prompted us to re-examine their distributions in the western North Atlantic.

Specimens are housed at the Florida State Museum, University of Florida (UF), and the Texas Cooperative Wildlife Collections, Texas A&M University (TCWC). Lengths are expressed as standard length.

*Neoscopelus macrolepidotus*  
and  
*Neoscopelus microchir*  
Figs. 1 - 2

The Neoscopelidae are a small (six species) family of pelagic and benthopelagic myctophiform fishes represented in the western North Atlantic by three cosmopolitan species. *Scopelogadus tristis* Alcock, 1890, is known from only two collections in the southern Caribbean off Venezuela, while

*Neoscopelus macrolepidotus* Johnson, 1863, and *N. microchir* Matsubara, 1943, are more common (seven confirmed records; Nafpaktitus, 1977). The two species of *Neoscopelus* are readily distinguished from one another on the basis of the length of the LO (lateral) photophore series, and on differences in gill-raker, pectoral and anal fin ray counts. Nafpaktitus (1977) pointed out that "the great morphological similarity of the species in the genus *Neoscopelus* and the very limited circulation of Matsubara's (1943) work on *N. microchir* have resulted in the assignment by previous workers of most of the Atlantic material to *N. macrolepidotus*. The confusion can be resolved only after careful re-examination and correct identification of all the material reported so far." This is exemplified in the reports of Springer and Bullis (1956) and Bullis and Thompson (1965) which included only *N. macrolepidotus* (from 8 stations) in their listings of 6367 western Atlantic stations made over an 11 year period by U.S. Fish and Wildlife Service exploratory fishing vessels.

Nafpaktitus (1977) did not examine any Gulf of Mexico *Neoscopelus* but suggested that the northern Gulf of Mexico (1 station) and Florida Straits (3 stations) specimens listed in Bullis and Thompson (1965) may belong to *N. microchir*. Our captures of both species from consecutive trawl stations off the Louisiana coast demonstrates that both species are represented in the Gulf of Mexico. Examination of additional material of *Neoscopelus* in the Florida State Museum and Texas Cooperative Wildlife Collection, including three lots from stations recorded by Bullis and Thompson (1965), plus Nafpaktitus' (1977) seven records indicate that both *N. macrolepidotus* and *N. microchir* are widespread in appropriate depths from

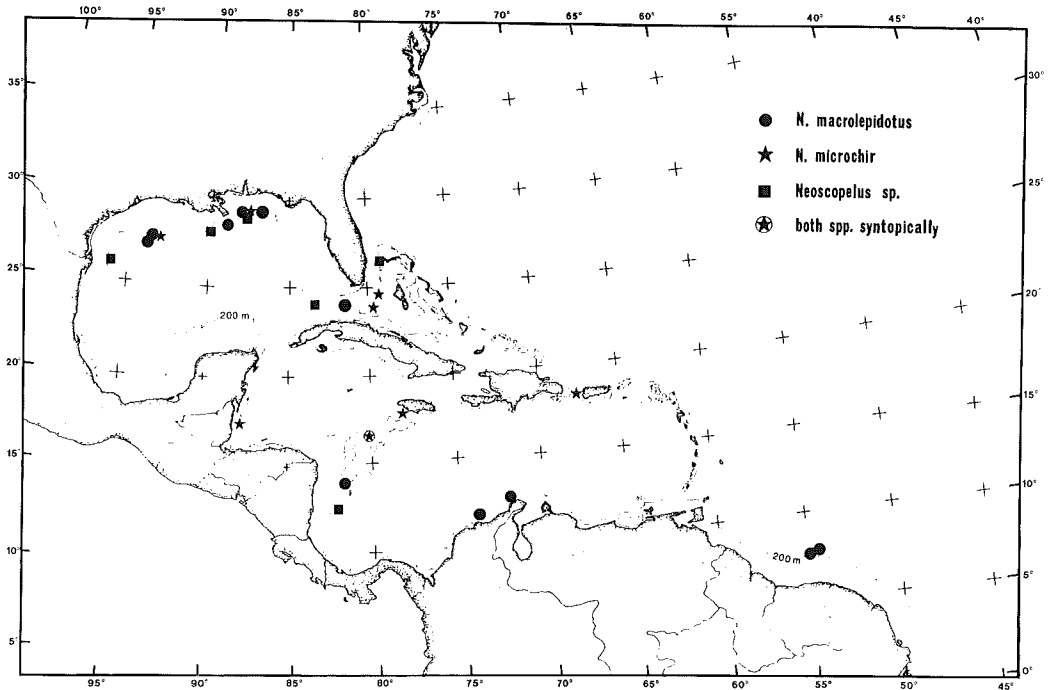


Figure 1. Distributions of *Neoscopelus macrolepidotus* and *N. microchir* in the western North Atlantic based on material examined and records in Nafpaktitis (1977.)

Florida to the Guianas (Fig. 1). The presence of *N. macrolepidotus* and *N. microchir* at R/V Oregon station 3560 establishes that these species are syntopic as well as sympatric in distribution. *N. macrolepidotus* has been taken in 411-1134 meters, and *N. microchir* from 481-640 meters.

#### Material Examined

*Neoscopelus macrolepidotus*. UF 40034, 3(89.2-106.8 mm), 27°32'N, 93°27.7'W, 534 m, FRS OREGON II 39535, 12 Aug. 1983; UF 40340, 2(80.0-86.3mm), 24°13'N, 81°24'W, 594 m, R/V SILVER BAY 2421, 28 Oct. 1960; UF 15633, 4(101.9-128.8 mm), 16°35'N, 80°10'W, 576 m, R/V OREGON 3560, 18 May 1962; TCWC 3793.11, 1(111.5 mm), 29°27'N, 86°57'W, 752 m, R/V ALAMINOS 67A5-9A, 19 July 1967; TCWC 3791.4, 3(176-191 mm), 11°33.8'N, 73°45.1'W, 731 m, R/V ALAMINOS 70A10-31, 17 July 1970; TCWC

2568.5, 2(89.5-100.5 mm), 28°40.9'N, 89°10'W, 219-366 m, R/V ALAMINOS 71A5-27, 9 June 1971; TCWC 3561.2, 3(64.1-87.4 mm), 27°15.3'N, 93°41.4'W, 805-1134 m, R/V ALAMINOS 73A10-20, 23 June 1973; TCWC3789.15, 2(141.5-143.0 mm), 12°40'N, 72°00'W, 612-658 m, R/V ALAMINOS 70A10-40, 18 July 1970; TCWC 3379.5, 3(113.4-122.5 mm), 29°11'N, 87°57'W, 552 m, FRS OREGON II 37718, 30 Oct. 1982.

*Neoscopelus microchir*. UF 40011, 4(73.7-88.2 mm), and TCWC 3572.2, 3(68.6-80.5 mm), 27°32.8'N, 93°17.1'W, 481 m, FRS OREGON II 3534, 12 Aug. 1983; UF 40342, 1(131.1 mm), 29°12'N, 87°52'W, 512-549 m, R/V OREGON 3653, 25 July 1962; UF 40343, 1(48.5 mm), 23°59'N, 79°43'W, 640m, R/V COMBAT 450, 24 July 1957; UF 40341, 1(82.1 mm), 24°48'N, 79°17'W, 549 m, R/V SILVER BAY 2475, 8 Nov. 1960; UF 40344, 3(92.6-106.6 mm), 16°35'N, 80°10'W, 576 m, R/V OREGON 3560, 18 May 1962.

quently by commercial fishermen in that area, and yields are sometimes over 200 pounds (eviscerated weight) per set. Finucane, *et al.* (1979) captured three larvae (3.6-4.9 mm) in Bongo nets on 13-14 July 1977 at 28°54'N, 94°45'W, indicating the population of *E. oculatus* in the western Gulf is reproductively active, and is not a seasonal immigrant or waif in the area. *E. oculatus* has been reported from the eastern Gulf by Darcy and Gutherz (1984); a single specimen was captured at 25°17'N, 84°05'W, in 181 m on 27 January 1978 (Gutherz, pers. comm.). Species associates at the two OREGON II stations were *Mustelus canis*, *Epinephalus flavolimbatus*, *Caulolatilus chrysops*, *Seriola rivirolana*, and *Rhomboplites aurorubens*.

#### Material Examined

UF 39632, 1(552 mm), and TCWC 3519.1, 1(690 mm), 27°37.6'N, 93°20.4'W, 150 m, FRS OREGON II 39536, 12 Aug. 1983; UF 39633, 2(385-417 mm), 27°42.2'N, 93°30.6'W, 132 m, FRS OREGON II 39537, 12 Aug. 1983; TCWC 2351.1, 1(644 mm), 27°41'N, 93°31'W, 183 m, 22 Mar. 1978.

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Janice D. Fechhelm drew the base map used in Fig. 1 and Wendy Zomlefer aided in the preparation of an earlier version of the figure. We are especially grateful of Steven Wing's tireless assistance throughout the cruise. W. Anderson and E. Gutherz reviewed the manuscript.

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