

## NOTES ICHTYOLOGIQUES

**FIRST WESTERN ATLANTIC RECORD OF ZEUGOPTERUS PUNCTATUS (PLEURONECTIFORMES: SCOPHTHALMIDAE) FROM OFF THE NEWFOUNDLAND COAST (CANADA).** Bruno CHANET, c/o Christian DENIEL, Institut Universitaire Européen de la Mer, place Nicolas Copernic, Technopôle, Brest-Iroise, 29280 Plouzané [Bruno.Chanet@wanadoo.fr] & Martine DESOUTTER, Muséum National d'Histoire Naturelle, Laboratoire d'Ichtyologie générale et appliquée, 43 rue Cuvier, 75231 Paris cedex 05, FRANCE [desoutte@mnhn.fr].

**RÉSUMÉ.** Premier signalement de *Zeugopterus punctatus* (Pleuronectiformes: Scophtalmidae) dans l'Atlantique ouest, sur les côtes de Terre-Neuve (Canada).

Le targeur, *Zeugopterus punctatus*, est un poisson plat bien connu sur les côtes européennes. Pour la première fois, deux spécimens (MNHN 1999-0251, 122-130 mm LS) sont mentionnés sur la côte ouest de l'Atlantique, près de Terre-Neuve (Canada).

Key-words. Scophtalmidae - *Zeugopterus punctatus* - ANW - Canada - Newfoundland - First record.

For the first time, two common topknots, *Zeugopterus punctatus* (Bloch, 1787), are mentioned off Newfoundland. These specimens, labelled «Terre Neuve, M.N. Guillot» (M.N. Guillot was a French collector of the Muséum national d'Histoire naturelle in the nineteenth century), were found in the backlogged collections of the Laboratoire d'Ichtyologie, MNHN, Paris (France). Unfortunately, the capture location of these two topknots has never been indicated precisely and cannot be further specified. As there is no such named as "Terre Neuve" on the European seashore and "Terre Neuve" is the French name for Newfoundland, the simplest solution is to consider that these specimens are genuine Newfoundlanders. Moreover, as typical Western Atlantic fishes present in the same lot were collected by M.N. Guillot in the same area, we can reject the hypothesis of a mislabelling.

The purpose of this note is to compare these West Atlantic specimens to those from the European coast specimens, where this species is

well-known, and to record their presence off the North American seashore.

### Material and methods

The comparative material is deposited in the collections of the Laboratoire d'Ichtyologie, MNHN, Paris (France) and in the National Museum of Natural History (USNM), Washington, D.C. (USA). Morphological and meristic characters have been compared to those in Norman (1934) and Nielsen (1986) and osteological features have been compiled from dissections and radiographs. The comparative specimens studied by us and reported in the literature came from the French, British, Swedish and Norwegian coasts.

### Specimens examined

*Zeugopterus punctatus*. 2 specimens, 61.3-170 mm SL; MNHN 1997-4015, 1 spm (dissected), 170 mm SL, Bay of Morlaix, 48°15'N-3°96'W, France, 5th; MNHN 1997-4016, 1 spm, 128 mm SL, Bay of Morlaix, 48°21'N-3°94'W, France, 5th; MNHN 1998-0393, 2 spms (dry skeletons), 66-106 mm SL, Sound of Brest, 48°21'N-4°36'W, France, 4th; MNHN 1995-0071, 1 spm, 157 mm SL, Chausey Islands, 48°51'N-1°53'W, France, 1th; MNHN 1974-0274, 1 spm, 61.3 mm SL, Roscoff, 48°43'N-3°59'W, France; MNHN 1996-0940, 1 spm, 158 mm SL, Houat Island, 47°24'N-2°57'W, France, 5th; MNHN-1292, 2 spms, 122.5-153.7 mm SL, Bohusland, Sweden; MNHN 1999-0251, 2 spms, 122-130 mm SL, Newfoundland, Canada; USNM 017361, 1 spm, 152 mm SL, off Bergen, Norway.

### Results and discussion

*Zeugopterus punctatus* is one of seven scophtalmid species present in the eastern part of the North Atlantic Ocean (Nielsen, 1986). Only one species, *Scophthalmus aquosus* (Mitchill, 1815), is well known in western North Atlantic (Norman, 1934). *Z. punctatus* is a common species along the European seashore. This species was previously reported only along the coasts of western Europe, from Trondhjem Fjord (Norway) to the Bay of Biscay (Norman, 1934; Nielsen, 1986). Buen (1926) and Chabanaud (1931) simply mentioned the presence of this species on the Mediterranean coast of Spain as well.

The topknot is a small left-eyed flatfish. As Norman (1934) indicated, this species can be

Table 1. Comparative meristic and morphometric data on *Zeugopterus punctatus*.

	European <i>Zeugopterus punctatus</i>				Newfoundland <i>Zeugopterus punctatus</i> (N = 2)
	Examined specimens (N = 10)		Norman (1934) (N = 24)	Nielsen (1986)	
	Range	Mean			
Body depth (% SL)	47.3-74.0	59.0	-	-	60.0
Interorbital width (% SL)	2.4-3.5	3.0	-	-	3.0
Vertebral number	10+25	10+25	9+26-28	-	10+26
Dorsal fin rays	80-110	89	88-102	85-102	88-90
Anal fin rays	67-80	71	67-76	67-80	67-68
Pelvic fin rays	6/6	6/6	6/6	-	6/6
Pectoral fin rays	10-11	11	11-12	-	11
Caudal fin rays	17	17	-	-	17

easily identified by the four following features: a very inclined mouth; the posterior rounded extension of each median fin on the caudal peduncle; darker spots and blotches on the eyed-side; presence of strong vertically directed ctenii on the eyed-side scales. Meristic data gathered on twelve specimens, ten European and the two from Newfoundland, as well as in the literature, are presented in table 1.

The two Newfoundland specimens do not differ from the European specimens in any of the morphological, meristic and osteological features examined. Unfortunately, as the Newfoundland common topknots have been preserved in alcohol and, thus, are faded, it is impossible to document the presence of the very characteristic coloration pattern of the common topknot i.e., the darker spots and blotches on the eyed-side.

These specimens represent the first record of *Zeugopterus punctatus* on the east coast of North America, Newfoundland (Canada), extending over 4,000 km to the west the geographical distribution of this species. Nevertheless, as this species had never been reported before in this area, we may think that *Z. punctatus* was present off Newfoundland during the nineteenth century.

**Acknowledgements.** We would like to thank the people who helped us in sampling specimens and provided technical support: D. Baron (Brest, France), M. Champion (Plouzané, France), M.-L. Bauchot, N. Bailly, P. Pruvost (MNHN, Paris, France), A.-C. Guibord, F. Chapleau (University of Ottawa, Canada). We are indebted to the two anonymous reviewers who greatly improved the quality of this work.

## REFERENCES

- BUEN DE F., 1926. Catalogo ictiologico del Mediterraneo Español y de Marruecos, recopilando lo publicado sobre peces de las costas mediterraneas y proximas del Atlantico (Mar de España). *Result. Camp. Int. Inst. Esp. Oceanogr.*, 2: 1-121.
- CHABANAUD P., 1931. Les poissons Pleuronectes de la Méditerranée (Pisces Heterosomata). *Mém. Ass. nat. Nice, Alpes-Maritimes*, Suppl. au "Riviera scientifique", 2: 1-40.
- NIELSEN J., 1986. *Scombridae*. In: Fishes of the North-Eastern Atlantic and Mediterranean, Vol. 3 (Whitehead P.J.P., Tortonese E., Bauchot M.-L., Hureau J.-C. & J. Nielsen, eds), pp. 287-1293. Paris: UNESCO.
- NORMAN J.R., 1934. Systematic Monograph of the Flatfishes (Heterosomata). Vol. 1: Psettodidae, Bothidae, Pleuronectidae. 459 pp. London: British Museum (Natural History).

Reçu le 03.05.1999.

Accepté pour publication 26.01.2000.