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Comments on Fishes from the Diego Ramirez Islands, Chile

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The Diego Ramirez Islands consist of a group of rocky, small islands between 66° and 67°S, and 68° and 69°W, south of Cape Horn, in a well known inhospitable region (Fig. 1). Fishes from there are practically unknown. A collection of 34 specimens was made in the inter- and subtidal areas of Gonzalo Island, one of the islands, in March 1981.

Three species, two of Nototheniidae and one of Zoarcidae, were in the collection. Species, number of specimens and total length range (mm) are as follows: *Notothenia magellanica* (Forster, 1801), 3, 52–190; *Notothenia cornucola* (Richardson, 1845), 24, 40–110; and *Austrolycus depressiceps* Regan 1913, 7, 68–190. Another zoarcid of the same species of ca. 650 mm TL was collected but not preserved.

Notothenia magellanica

Although *N. magellanica* is similar to other congeneric fishes, it may be distinguishable because of the following specific characteristics: upper lateral line with 36–48 tubular scales, total number of scales in upper and middle lateral lines 45–57; caudal peduncle longer than deep, its length 37.0–45.5% of head length; preoperculo-mandibular canal not connected with the temporal canal; dorsal surface of head without prominent ridges. These characteristics given in modern literature (De Witt, 1970) as well as other external anatomical features were clearly seen in our three specimens. We consider the number of anal 22–25 as a good character together with pelvic length which is much shorter than pectorals (Norman, 1937), to differentiate both species of *Notothenia*.

The recently caught fishes were a colorful red vermillion, with orange and green tones. They were caught with hook and line in the Isla Gonzalo reefs, from littoral rocks.

Remarks. *N. magellanica* has a primarily subantarctic distribution, extending north to the edge of the Antarctic zone at the Kerguelen and Macquarie Islands (De Witt, 1970). It is also present in the South Orkney Islands and South Georgia Islands (Permitin, 1977), and is the most widely distributed of the three species here studied.

Notothenia cornucola

As well as *N. magellanica* it has opercles scaled only on the upper part of the operculum and the upper surface of the head is naked. Upper lateral

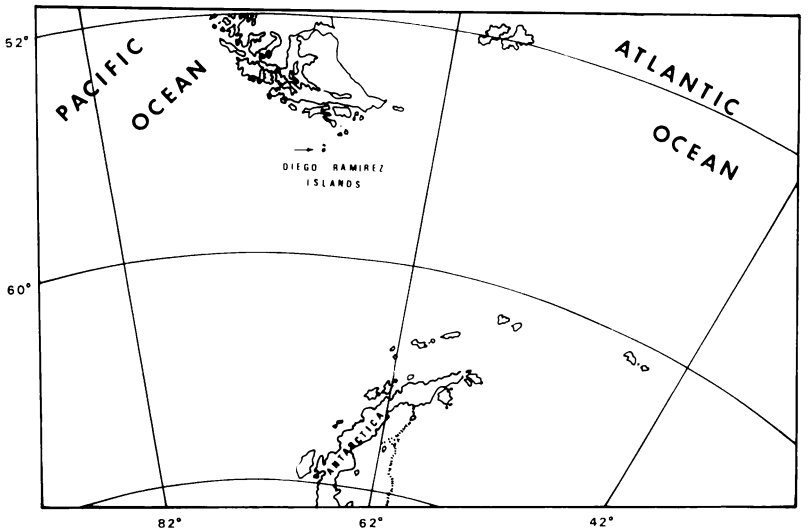

Fig. 1. Location of the Diego Ramírez Islands, in a southwest position of Cape Horn.

line with 33–42 tubular scales; 2–23 scales in the middle lateral line. Caudal peduncle much deeper than long. Dorsal surface of head without prominent ridges. Anal 27–31; pectorals as long as or a little longer than pelvics. These specimens were caught from shallower waters than *N. magellanica* specimens, by means of hand nets, in littoral pools during low tide. Color was generally dark brown with some spots and stripes, very well in agreement with data already given in literature (Norman, 1937).

Remarks. The specimens of *N. cornucola* were well in agreement with specimens previously studied from southern Chile (Navarro and Pequeño, 1979). The number of scales in the lateral line is very variable and not the best taxonomical tool. In 37 specimens examined, 40.5% were possessing higher number of scales on the right side of the body, meanwhile 27% showed more tubular scales on the left side. Only 32.4% of individuals had equal counts on both sides.

N. cornucola is a species restricted to the southern areas of South America, being also present in the Malvinas Islands (Navarro and Pequeño, 1979). Evidence of its presence in New Zealand has been rather confused and recent authors do not include the species within that area (Regan, 1913; Norman, 1937; De Witt, 1970).

Austrolycus depressiceps

Species distinguishable from other zoarcids of South America by the following concomitant characteristics: pelvic fins present; dorsal fin origin above base or anterior part of pectoral fin; no dermal appendages around mouth; gill opening extending downward to at least the middle of pectoral fin base, but not reaching the lower end of pectoral fin base. Head depressed. Body elongated and tail compressed, with depth around 7–9% TL. In our specimens these main characteristics given for the genus and species (Gosztonyi, 1977; Pequeño, in press) were present. We distinguished our specimens from *Austrolycus laticinctus* (Berg, 1895) by the presence of pelvic fins which do not or just reach a vertical through the pectoral fin bases, and a subterminal mouth with the comparatively short upper jaw.

Specimens were dark brown, difficult to catch in the water, living among macroalgae, below rocks and stones. They are very mobile and fast.

Remarks. This zoarcid has been shown to live on both sides of southern South America, including the Malvinas Islands, and appears to be little more northwardly distributed on the Chilean coast (Navarro and Pequeño, 1977; Gosztonyi, 1977).

Comments

On the basis of this preliminary ichthyological study, the Diego Ramirez Islands appear to have a clear link to South America, but also show rather circumantarctic elements for *N. magellanica*. *N. cornula* has a geographical distribution very similar to *Z. depressiceps*. During summer the islands are slightly north of the Antarctic convergence, but in winter they are in a colder regime. Since these islands are in an interesting position for zoogeographical studies, it is likely that other interesting forms of fishes will be found there as well. The island group may be a place that can be reached by species drifting by action of the West Wind Drift, as seen in other places with other nototheniids (Andriashev, 1965).

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チリ南方のディエゴ・ラミレス諸島の魚類

German Pequeno

チリ南方のディエゴ・ラミレス諸島から採集されたノトテニア科の *Notothenia magellanica* と *N. cornucola* およびゲンゲ科の *Austrolycus depressiceps* の形態，生態，分布を記した．*N. magellanica* は亜南極域に主に分布し，*N. cornucola* は南アメリカの南部にのみ分布する．本種がニュージーランドに分布するという報告もあるが疑わしい．*A. depressiceps* の分布は *N. magellanica* に似ており，南アメリカの南部に出現する．