

DISTRIBUTION AND ABUNDANCE OF FISH LARVAE AND JUVENILES AT BRANSFIELD AND GERLACHE STRAITS (ANTARCTIC PENINSULA) DURING SUMMER OF 2002/03 AND 2003/04

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The Antarctic ichthyofauna is small in size and less diverse than might be expected, given the size and age of the Antarctic marine ecosystem. There are about 300 Antarctic marine fish species described in 49 families, which represent only 1.3% of the worldwide fish species. Hence, knowledge of the ichthyoplankton community structure at the Antarctic ecosystem is primordial to understand the processes influencing its recruitment.

This project is part of the High Latitudes Oceanography Group (Net 1 – Brazilian Antarctic Program), and its objective is to investigate the distribution of fish larvae collected at Bransfield and Gerlache Straits during 2002/03 and 2003/04 Summer (Antarctic Operations XXI and XXII, respectively).

During the summer of 2002/03 and 2003/04, 25 and 52 stations were sampled, respectively.

Bongo nets with 0.50 m² square mouth openings and 330 µm sized mesh, were employed to collect samples in oblique hauls.

In the laboratory samples were sorted under a stereomicroscope and fish larvae or juveniles specimens were identified and measured.

A total amount of 39 individuals were collected and most individual belonged to Family Nototheniidae (71.8%, n=28).

The total density (ind.1000m⁻³) of fish larvae and juveniles collected on Both, Bransfield and Gerlache Straits, during the summer of 2002/03 and 2003/04 can be seen on Fig. 1 and 2, respectively.

Pleuragramma antarcticum (16.38ind/1000m³, n=5) and *Lepidonotothen kempfi* (9.33ind/1000m³, n=3) were the most abundant species in 2002/03, as well as *L. kempfi* (16.83ind/1000m³, n=11) and *Chionodraco rastrospinosus* (12.08ind/1000m³, n=3) in 2003/04.

At Gerlache Strait, *L. kempfi* presented the highest density values (9.33 and 16.83ind/1000m³, during 2002/03 and 2003/04, respectively), including yolk-sac larvae, indicating this particular Strait and the surrounding area as preferential spawning areas.

At Bransfield Strait, *P. antarcticum* presented the highest density (16.38 ind/1000m³) during 2002/03, and *C. rastrospinosus* in 2003/04 (12.08ind/1000m³).

The ichthyoplankton community structure was typical for the studied area, and low densities of both larvae and juveniles have also been reported by others authors.

Our results corroborate previous studies, and show the importance of those regions as nursery areas.

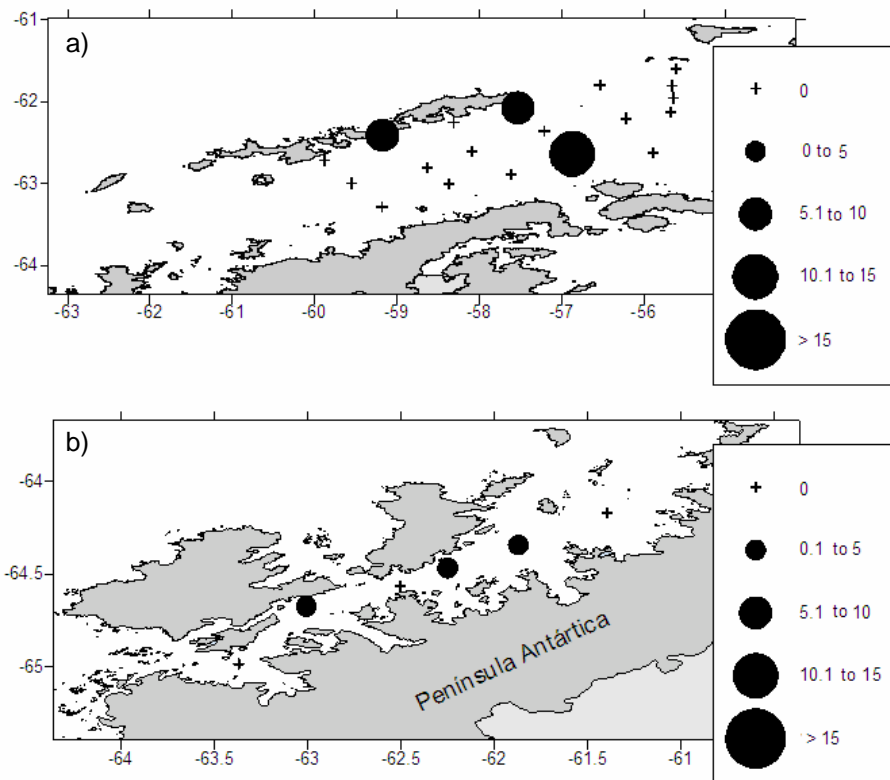


Fig. 1: Total density (ind.1000m⁻³) of fish larvae and juveniles collected during the summer of 2002/03 at Bransfield Strait (a), and Gerlache Strait (b).

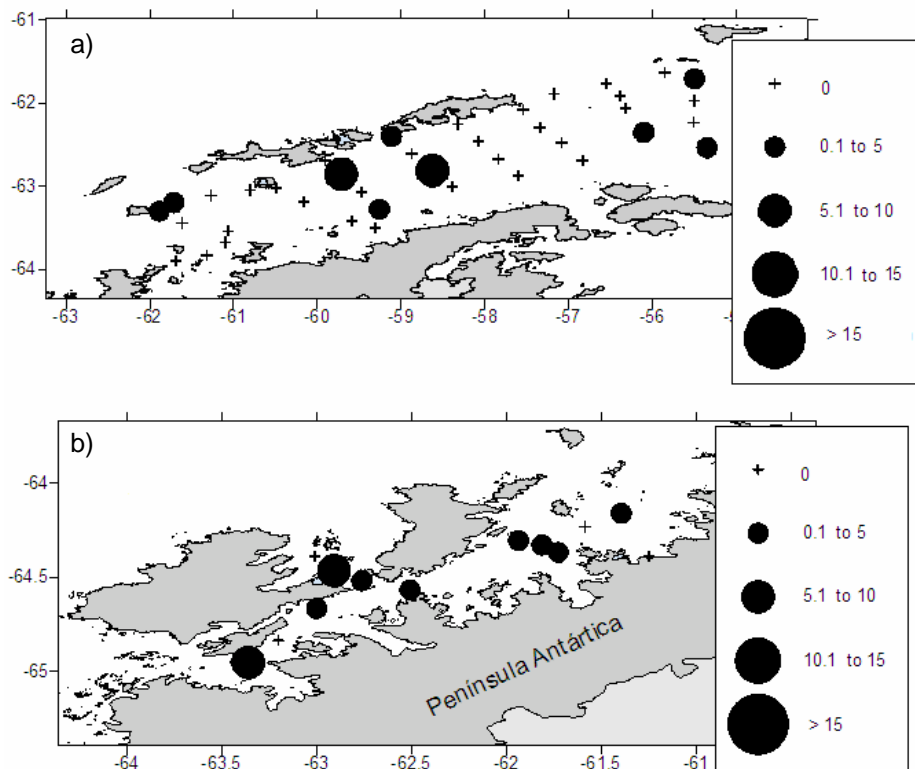


Fig. 2: Total density (ind.1000m⁻³) of fish larvae collected during the summer of 2003/04 at Bransfield Strait (a), and Gerlache Strait (b).

PROANTAR, GOAL, CNPq, MMA, SECIRM, CAPES