

## ENCOUNTER RATES OF HUMPBACK, MINKE AND KILLER WHALES IN THE GERLACHE STRAIT, ANTARCTICA: SUMMERS 1997/98 TO 2000/01.

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Most baleen whales migrate every summer to highly productive feeding grounds in Antarctic and sub-Antarctic waters. Although these species are widely distributed all around the Antarctic continent, there seem to exist some preferential feeding spots where the density of whales is very high. Gerlache Strait is one of these areas where whales, especially humpbacks, *Megaptera novaeangliae*, are very abundant. During the austral summers of 1997/98 to 2000/01, the *Projeto Baleias/Brazilian Antarctic Program* conducted systematic ship surveys for estimating cetacean relative encounter rate in the Gerlache Strait (ca. 63°44'S; 61°07'W to 64°59'S; 63°23'W), eastern Antarctic Peninsula. Encounter rates were obtained from three (1997/98), one (98/99), two (99/00), and four (2000/01) surveys allowing for interannual comparisons. A total of 1096.5 miles were surveyed. Effort was not evenly distributed along the years, being higher (41.5% of the total effort) in the summer 2000/01 and lower (14%) in the summer 1998/99. Despite this interannual variation on effort, the same trend of whale's encounter rate was observed for all periods. Humpback whale is the most commonly seen species in the Gerlache Strait. Its high encounter rate (mean = 0.34 whale/nautical mile; ranging from 0.15 to 0.52) was followed by minke, *Balaenoptera* spp. (mean = 0.13 whale/nautical mile; ranging from 0.05 to 0.16) and killer whale, *Orcinus orca* (0.11 whale/nautical mile; ranging from 0.095 to 0.16). Eventual sightings of southern right whales, *Eubalaena australis*, and beaked whales (family ziphiidae) also occurred in the area. Data also indicate that minke whales arrive early in the season (i.e. late November – early December), while humpbacks seem to arrive after mid December, being frequently sighted only about late December-early January. Higher densities of humpback whales (ca. 0.5 whale/nautical mile) are reported from late January to early March. Although interannual variation in the mean encounter rate of humpbacks in the Gerlache Strait was observed, Anova and Kruskal-Wallis tests showed no statistical significance. The Gerlache Strait seems to be relevant as a target area for integrated ecological surveys. Given the high concentration and accessibility of humpback whales in the area, it is considered also appropriate to conduct long term photo-identification and genetic studies. These multidisciplinary studies would provide a valuable contribution to our knowledge on the ecology of the humpback and other whales in Antarctica.

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