A Review of Year-Round and Stateside Activities in the U.S. Antarctic Research Program, 1967-1968

The second part of a collection of articles on the activities of the U.S. Antarctic Research Program (USARP), 1967-1968, is presented in this issue of the Antarctic Journal. *Whereas the last issue dealt with the field programs carried out during the 1967-1968 summer in Antarctica, this issue is devoted to the year-round programs conducted on the Continent and aboard* Eltanin, *studies made in the United States on the basis of data and specimens collected in the field during prior years, and the service programs that support USARP scientists in all disciplines. This presentation completes the description of most of the projects conducted during the past year.*

The projects described were proposed and carried out by scientists of universities, private or commercial institutions, and government agencies. The funding and overall administration of the U.S. Antarctic Research Program are the responsibility of the National Science Foundation. Field support of the program is provided by the U.S. Navy.

BIOLOGY

The Distribution of Thecosomatous Pteropods in Relation to The Antarctic Convergence

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The Antarctic Convergence is not necessarily a sharp boundary with respect to the distribution of the majority of species that occur in its vicinity. However, the areas to the north and south of the Convergence show many contrasts in both plankton (Mackintosh, 1960) and thecosomatous pteropods. Two antarctic species of thecosomatous pteropods (*Limacina helicina* and *Clio sulcata*) extend 8°—10° of latitude north of the Convergence, but their main concentrations are to the south. The southern limit of subantarctic species is that of *Limacina retroversa,* which is about 5°—8° of latitude south of the Convergence. The only species not found south of the Convergence is *Clio antarctica.*

The mixing of the antarctic and subantarctic thecosomatous species takes place in a zone about 16° latitude in width that is centered on the Convergence. This may be due to mixing ocean currents. Deacon (1937) pointed out that the Antarctic Convergence is an unstable boundary with extensive and unpredictable loops and twists. According to Mackintosh (1964), the Convergence is sometimes located 60 miles or more to the north or south of its mean position, and there may be mixing of antarctic and subantarctic waters to a comparable distance on either side.

Four *Eltanin* profiles (Fig. 1), along 35° W. (Cruise 9), 75° W. (Cruise 10), 90° W. (Cruise 13), and 135° W. (Cruise 17), have been selected to show

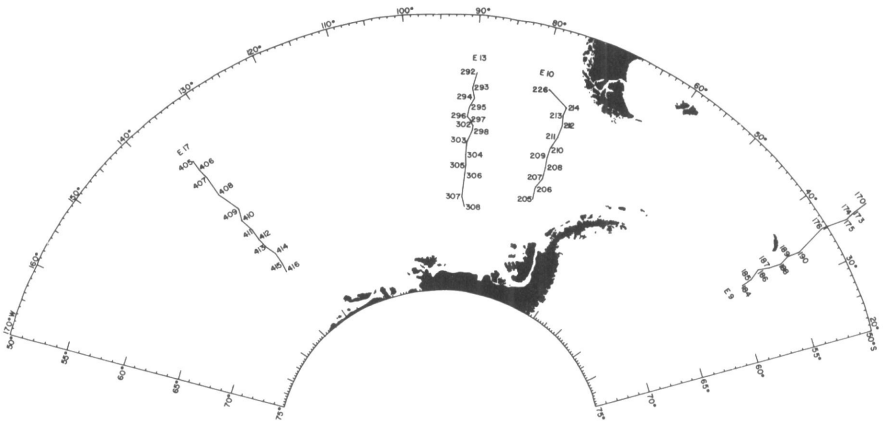

Figure 1. Locations of four profiles (E-9, -10, -13, and -17). The numbers refer to hydrographic stations (Jacobs, 1965 and 1966).