THE BREEDING SEABIRDS OF SOUTHWESTERN AUSTRALIA: TRENDS IN SPECIES, POPULATIONS AND COLONIES

J. N. DUNLOP' and R. D. WOOLLER²

'School of Biology, Curtin University of Technology, Bentley, WA 6102

²Biological Sciences, Murdoch University, WA 6150

Received 7 December, 1989

Australia has the only continental west coast with a poleward flowing warm, low salinity boundary current. This water mass, the Leeuwin Current, masks the deeper, equatorward, cold water, Westralian Current along the continental slope for much of the year, although it flows strongly only from about April to August.

In southwestern Australia, apparently as a consequence of the Leeuwin Current, tropical seabird species breed much further south than their usual latitudinal limits and often share nesting islands with southern, cool water species in peculiar communities. On the south coast of Western Australia the cool water breeding seabird fauna is apparently depauperate, due to the intrusion of the tropical drift.

There are evidently both short and long-term cycles in the strength and dominance of the Leeuwin Current which profoundly affect the distribution and biology of the breeding seabird species. The prevalent conditions appear to influence nesting season, reproductive periodicity, and range extension or contraction. Trends may be evident at the species, population and colony level.