the age, rate of growth and aspects of reproduction (sex ratio, maturity and spawning period). Results are compared with those obtained for this species in other areas.

A GENETIC ANALYSIS OF CORY'S SHEARWATER BY DNA FINGERPRINTING

PARKIN, D. T.; WELSH, A. & ZINO, F. - Department of Genetics, University of Nottingham, Queens Medical Centre, Nottingham NG7 2UH, U.K.

Cory's Shearwater (*Calonectris diomedea*) breeds on the island of Selvagem Grande where it has been studied for many years. It nests colonially in crevices, both in caves and shallow openings. Adults breed for the first time at about 9 years of age, and remain highly faithful to both partner and territory.

Blood samples were taken from adult and nestling shearwaters by FZ, from an area approximately 120m by 15m. Approximately 50 family groups were screened using a conventional 'multilocous' fingerprinting probe.

Evidence will be presented suggesting:

(1) that the fingerprints permit the identification of the sex of a bird.

(2) that the majority of nestlings are the progeny of the attendant adults.

(3) that it is possible to distinguish between alternative adults when more than two have been trapped at the nest.

(4) that there is no evidence of assertive mating with respect to fingerprinting phenotypes.

The significance of these results to seabird ecology and genetics will be discussed.

POSTER

DEEP DEMERSAL FISHES IN CANARY ISLANDS

PASCUAL-ALAYÓN, P.; BRITO, A.; GONZÁLEZ, J. A.; SANTANA, J. I.; FALCÓN, J. M.; LOZANO, I. J.; JIMÉNEZ, S. & GONZÁLEZ-LORENZO, G. - Departamento de Biología Animal (Ciencias Marinas) Universidad de La Laguna. Tenerife. Islas Canarias. Spain.

In the present paper some remarks about deep-sea demersal species of fishes captured in fishery prospections from La Gomera, Gran Canaria and Tenerife (Canary Islands) between 300-2500 m depth is given. Long-lines and experimental traps were used during the cruises. Twenty-five species belonging to ten families were collected; for each species data on the ecology, bathymetric and geographic distribution are presented.

TEMPERATURE GRADIENT EXPERIMENTS ON FOUR SPECIES OF BROWN ALGAE FROM ATLANTIC ISLANDS

PEDERSEN, P. M. & KRISTIANSEN, Aa. - Botanical Institute, Department of Mycology and Phycology, Ø. Farimagsgade 2 D, DK-1353 Copenhagen K, Denmark.

Four species of brown algae from Madeira and Lanzarote, *Giraudia sphacelarioides* Derbès et Solier in Castagne, *Feldmannia irregularis* (Kütz) Hamel, *Ectocarpus rallsiae* Vickers, and *Ectocarpus virescens* (Thuret.) Sauv., have been studied on a temperature gradient apparatus with temperatures from 5°C at 30°C.

Three species, *G. sphacelarioides*, *F. irregularis*, and *E. rallsiae* belong to the amphiatlantic tropical-to-temperate group. Their northern limit is a growth and reproductive boundary. This is particularly clear for *Giraudia sphacelarioides* where formation of macrothalli is restricted to temperatures above 10.5°C. In *F. irregularis* and *E. rallsiae* it is more clearly a reproductive boundary due to great difference between temperatures allowing growth and temperatures allowing reproduction. *E. virescens* belongs to the warm temperature Mediterranean-Atlantic group. The northern limit is probably a lethal boundary as the inoculum diet at 5°C, 7°C and 10°C.

Details concerning lethal, growth, and reproductive boundaries for the four species will be presented, together with further information on growth, reproduction, and morphological variation of the macrothalli.