The other sightings, except for the resident King Penguins, are extra-limital records that add to the knowledge of each species' pelagic dispersion.

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THE ANTARCTIC FLEA

Glaciopsyllus antarciticus

Bell, P. J., Burton, H. R. and van Franeker, J. A. (1988) have reported in *Polar Biology* **8**: 403-410 the findings of a study on Ardery Island. The life-cycle of the flea was completed only where birds were present as the flea is dependent upon its host for food and warmth, and was completed during the incubation of eggs and rearing of chicks of the Antarctic Fulmar, before the chicks were fledged. Flea eggs were found in nest material while the fulmars were incubating eggs, and flea larvae when chicks were hatching and during their subsequent development. However, larvae were found mainly in the belly down of the chicks, where they fed on blood and/or blood-faeces from adult fleas, and here they pupated, in woven cocoons attached to the down feathers. Adults emerged before the chicks had fledged; a few were found in the nests but they were abundant on chicks (505 in the belly down of one chick). Mating adults were seen on chicks, and it appeared that fleas on chicks overfed, that is, they produced large quantities of faeces containing blood of the host. These faeces are often a source of food for larval fleas. The authors feel that this synchronization of the breeding cycle of the flea with that of its host and its dependance upon chicks, suggest it may be like the rabbit flea *Spilopsyllus cuniculi*, whose reproductive biology is controlled by the hormonal state of the host. If true, it will be the first avian example. This flea is clearly not a nest-flea like most bird fleas. The question remains — how does the flea overwinter? The lack of fleas in the nests of Antarctic Fulmars known to have been well infested before the bird's departure has led the authors to think that adult fleas remain on non-breeding hosts while they are away from their nesting sites. Clearly all Antarctic Fulmars and Snow Petrels captured alive between April and November, when they are not breeding, should be examined closely for fleas, and there is a strong case for examining carefully washed-up birds if in good condition. It only requires one infested bird to be found to indicate that the authors may be correct. Any fleas found should be preserved, preferably in 70% alcohol (a nip of whisky would be warranted), so that the flea may be identified correctly.

Durno Murray