

YEYED PENGUIN?

by Fergus Sutherland, Forest and Bird Southland branch chairman

ing population. John has shown that there are fewer than 700 birds left on the mainland and that losses have continued since the first full count in 1984. The 1986-7 summer breeding season was a disaster for hoiho. Suffering from what appeared to be lack of food, some breeding areas failed to fledge any new offspring, while others produced very few young and a large number



Southern South Island: extent of forested land before 1840



Southern South Island: present forest cover and principal hoiho breeding areas on the mainland.

of adults also died. Breeding adults have declined by 65 percent over the last two years.

Food supplies

With hoiho's problem of survival highlighted, other researchers are entering the field. Yolanda van Heezik, a PhD zoology student at Otago University, is working on the vital question of food supplies. Her results so far show that although a wide variety of small fish are eaten by hoiho, the main ones are red cod, opal fish, sprat, ahura and squid. She also found that if there is insufficient food to build up the young to over five kilograms by their fledgling state, they are unlikely to survive. Her research indicated that owing to the small size and low fishing priority of fish eaten by hoiho there is no direct competition with commercial fishing, but the complexity of

the oceanic food chain means that indirect links may exist. The lack of food in the 1986-7 season seems to be linked to changes in the normal distribution of fish as a result of the El Nino effect on oceanic currents and temperatures.

Other research underway by John Darby, Otago University student Philip Seddon and by the Department of Conservation scientists aims to find out more about how hoiho uses its loud voice, the effects of temperature on breeding success, and possible gene flow between the mainland and offshore island hoiho populations.

With the recent significant decline in the numbers of birds breeding on the mainland there is some urgency to establish whether recruitment occurs to the mainland from sub-antarctic populations. A Department of Conservation expedition (with John Darby on board the HMNZS Wellington) recently



Otago scientist John Darby first drew attention to the serious plight of the yellow-eyed penguin in the early 1980s. Here he and conservation officer Peter Moore study a dead penguin during a recent Department of Conservation seminar.



Stoats, ferrets and wild cats follow well-trodden trails to the penguins' nests to take the helpless chicks. Parents are ineffective against such attacks. Trapping is attempted, but catches only a few predators.



In their weakened and bedraggled condition, moulting penguins are easy targets for sharpshooters (left) and other predators. During this autumnal danger period, they seek out the haven of whatever shelter exists (right).

