



While the family groups generally keep to the hills, other kea converge on skifields and villages. These 'gangs' are predominantly males of all ages, attracted by food handouts and the novelty of people with all the toys they bring with them. Having fed, usually on junk food, their curiosity leads them to explore and often damage vehicles or buildings. Sometimes these antics lead to their deaths. For the wellbeing of both kea and people, kea should not be fed and food scraps should be disposed of so that kea cannot get them.

Population Unknown

No one knows how many kea there are, and no reliable estimate is likely within the foreseeable future. The most often quoted figure is 5000, a rough estimate made by the Wildlife Service in 1986 but based on very little information. It would be more useful to establish an index that could be used to determine whether populations are increasing, declining

or stable. Ria and I have tried a number of approaches to this, the most promising being the relative proportions of fledglings, immatures and adults present in late summer. We have three years' data for Mount Cook, Arthur's Pass, and Craigieburn, but this material is not yet analysed.

Kea are breeding successfully in each of the parks we have visited, but their tendency to concentrate in sites of human activity and to fly over several kilometres in large, noisy, conspicuous flocks gives a misleading impression of their abundance.

Kea appear to be less common now than they were 100 years ago throughout their range, and they are less common at Arthur's Pass than they were 20 years ago. Kea exhibit those characteristics shared by so many New Zealand species that have declined in the face of competitors, predators and habitat change: delayed maturity, not all adults breeding each year, only one clutch per sea-

son and a small clutch size. There may be only a few hundred kea in each large protected area and each of these populations may well be genetically isolated. There are probably relatively few kea living outside these protected areas. Such species may be quite safe in the short term, but in the long term their futures can be uncertain. I plan to collect blood from kea at several parks, and by comparing DNA or blood proteins assess how isolated these populations are.

One hundred years ago all New Zealand's parrots and parakeets were common, but all have declined. Today the kakapo is on the brink of extinction, on the mainland kaka are uncommon and declining, the orange-crowned parakeet is of uncertain status, red-crowned parakeets are scarce on the mainland and some island subspecies are extinct, and the yellow-crowned parakeet is now much restricted in distribution. Today, the kea is our only parrot that is readily observable at