

Diurnal birds of prey with long fingered or pointed wings; long tail; short hooked bill with coloured facial skin at the base of the bill (cere); powerful, largely unfeathered legs with long sharp talons for grasping prey or gripping carrion. Sexes usually alike, but females larger. Juveniles darker than adults.

AUSTRALASIAN HARRIER (Kahu) *Circus approximans*

Abundant native

♂ 55 cm, 650 g; ♀ 60 cm, 850 g. *Large brown hawk with long fingered wings held in shallow V, and a long slightly rounded tail. Becomes paler with age. Juvenile very dark brown with a prominent white patch on back of head; brown uppertail and brown eye. In adult, head and upperparts dark brown, face paler; uppertail white, tail light brown barred dark brown; underparts reddish brown streaked dark brown, underwings barred at tips and on trailing half. Some very old males have frosty-grey upperparts, pale buff underparts and white underwings. Eye yellow in males, very pale yellow in females. Commonly soars and glides in search of prey or carrion; often feeds on road-killed animals. Habitat: Farmland, tussockland and swamps, also forest edges. Breeding: Sep–Feb.*

[Sp 142]



AUSTRALASIAN HARRIER



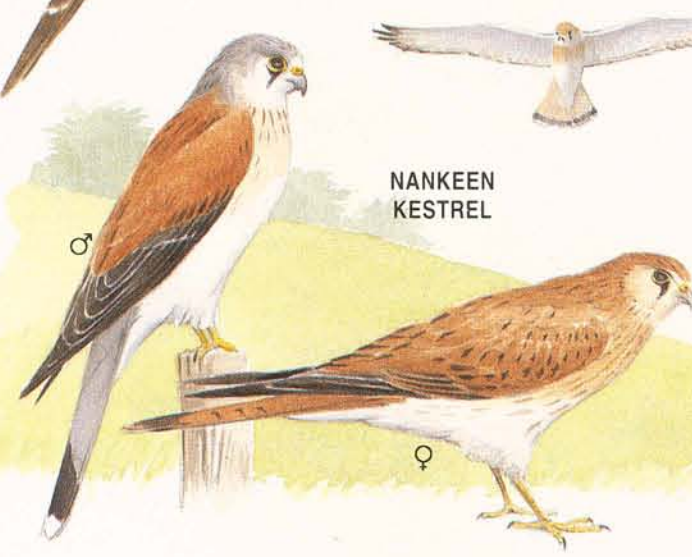
NEW ZEALAND FALCON



BLACK KITE



NANKEEN KESTREL



BLACK FALCON



RAPTORS

The raptors, or diurnal birds of prey, are found worldwide from inshore marine habitats to the mountain tops. There are about 217 species of eagle, kite, hawk and harrier (Accipitridae), of which only 1 breeds in New Zealand and 1 is a vagrant, although

Accipitridae and Falconidae

there are occasional rumours of large eagles, presumably vagrants from Australia. There are 61 species of falcon and kestrel (Falconidae); again only 1 species breeds in New Zealand, but 2 are vagrants. Subfossil bones of a large, long-legged, short-winged eagle

Harpagornis moorei and of a sea eagle *Ichthyophaga australis* show that New Zealand used to have a greater variety of raptors.

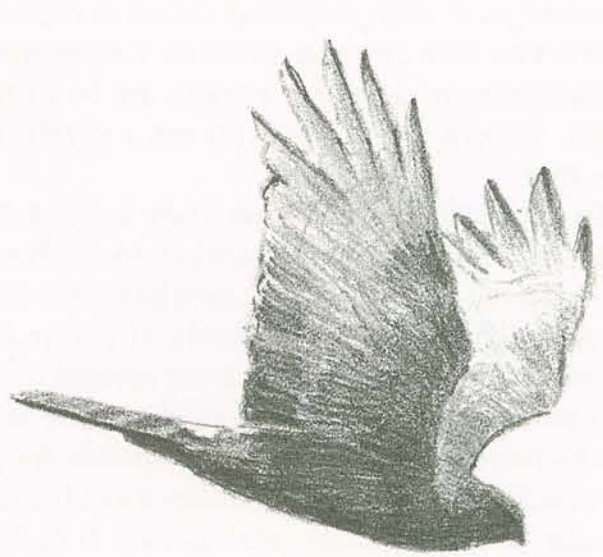
very sharp talons; a small, broad, hooked bill with a waxy cere at the base of the upper bill; and large eyes.

New Zealand raptors are medium-to-large, mainly brown birds. Raptors have long wings and tail; long, unfeathered powerful feet with

Reading: Brown, L.H. *Birds of Prey*. London: Hamlyn. Cade, T.J. 1982. *The Falcons of the World*. London: Collins. Newton, I. 1976. *Population Ecology of Raptors*. Berkhamsted: Poyser.

142. AUSTRALASIAN HARRIER *Circus approximans* Plate 33

Other names: Kahu, Hawk, Swamp Harrier
Size: 55 cm; males 650 g, females 850 g
Distribution: Breed widely in southeastern New Guinea, Australia and the southern Pacific, including Vanuatu, New Caledonia, Fiji, Tonga, Wallis Island, French Polynesia (introduced), and in New Zealand. Vagrants have been recorded from Samoa and the Cook Islands. Harriers are widespread and common throughout open country on the New Zealand mainland, offshore islands and the Chathams. They visit the Kermadec Islands each winter and wander to The Snares, Auckland and Campbell Islands.



In New Zealand, Harriers are common in wetlands, farmland, high-country tussockland, scrubland, along forest margins and riverbeds and around the coast. The only habitats they rarely use are large dense stands of native or exotic forest, and urban areas. Banding studies show much movement both north and south across Cook Strait, especially of young birds wandering in autumn and early winter. Adults also disperse from their

breeding home range in February–March and sometimes use a regular wintering area up to 100 km away each year.

Population: Widespread and very common, especially compared with the number of raptors seen in other parts of the world.

Conservation: Protected native. Harriers undoubtedly benefited from the conversion

of forest to farmland since European settlement and the introduction of small mammals (especially rabbits) and birds, which form the main part of their diet. For many years they were persecuted by some farmers for attacking young lambs and cast sheep, and sportsmen shot many because Harriers sometimes attack young gamebirds. During the 1930s and 1940s, bounties were paid by Acclimatisation Societies for hundreds of thousands of birds, but Harriers remained abundant. Since the 1950s, numbers have declined as rabbit control has removed a key part of their diet, but they remain common. They were protected in 1985.

have been recorded breeding, but males probably do not start breeding until 2–3 years old. Pairs return to the same territory year after year, but occasionally a male will mate with two females. The oldest Harrier recorded in New Zealand lived over 18 years.

Behaviour: Strongly territorial in the breeding season but otherwise usually solitary. However, in winter they often have large (100+ birds) communal roosts in a secluded swamp, and they sometimes form loose flocks when dispersing long distance or when feeding at abundant sources such as at rabbit carcasses after a poisoning operation. Harriers are silent outside the breeding season, except for an occasional whistle. During display flights, especially dives, they are very vocal, the male giving a repeated high-pitched 'kee-a', and the female a 'kee-o' response.

Breeding: Males establish their territories in May–June, but females do not return until June–August. In June, some pairs start courtship soaring, and on warm calm days from late July to October pairs are often seen doing their spectacular 'sky dance' or courtship diving, a series of U-shaped dives accompanied by loud calls. In September–October, females start building the nest. It is a low platform of bracken, manuka, raupo and flax stalks, topped with rushes, cabbage-tree leaves and grass. It is sited on the ground in swamps, in wet patches covered in rushes, in bracken fern or rank grass in young pine plantations or on road verges, or in grain crops. Rarely, nests are built on a platform in a tree.

Feeding: Diet is varied, with both carrion and live prey eaten. The main carrion are sheep (especially in winter and spring), possums and hedgehogs (from roads), and waterfowl and other gamebirds (during the shooting season). Live prey is mainly small mammals (especially rabbits, hares, hedgehogs, rats and mice), small birds (introduced species and ducks and eggs), frogs, fish, lizards and large invertebrates such as grasshoppers and crickets (in summer and autumn).

Harriers hunt by day and usually search for prey by low slow-quartering followed by a dive attack or by briefly hovering and then dropping vertically. Harriers sometimes soar high, especially when searching for carrion, and they sometimes stoop like a falcon to flush small birds from a crop. Young birds often hunt insects on the ground with a series of pounces and snatches with the feet. Prey is caught by the sharp talons, not with the bill, which has a very weak bite, but the hooked tip is used to lever skin and flesh from the carcass.

In September–December, they lay 2–3–5–7 off-white eggs (52 x 39 mm) at 48–72-hour intervals. Only the female incubates for 31–34 days, but the male feeds the female throughout. The eggs hatch over several days and some eggs are abandoned once a few chicks have hatched. Only the female feeds the chicks, but the male gathers food for the female and the chicks, and passes it to the female by dropping it as both birds fly close to the nest. When the chicks are older, both adults hunt, and when the female is away the male occasionally drops food at the nest but does not stay to feed them.

In the hand: First-winter Harriers have brown eyes, dark brown plumage with an obvious white nape patch, and do not moult their flight feathers. In females, the eye colour changes to mid-brown in the second winter and yellow in later years; whereas in males yellow specks have appeared at 9 months of age and by the second year they have golden-yellow eyes, which in later years turn

The chicks fledge at 43–46 days old, in December–February. They remain with their parents for a week after leaving the nest, but gradually venture further and finally disperse about 7 weeks after fledging. Yearling females

seasons, usually weighing over 800 g, whereas males rarely exceed 750 g, even with a full crop.

Reading: Baker-Gabb, D.J. 1979. *Notornis* 26: 325–329. Baker-Gabb, D.J. 1981. *Notornis* 28: 103–119. Baker-Gabb, D.J. 1981. *Notornis* 28: 241–254. Pierce, R.J. & Maloney, R.F. 1989. *Notornis* 36: 1–12. Robertson, H.A. 1980. *NZ J Zool* 7: 579–583.