

Passerines are the largest group of birds. They are small to medium sized land birds found worldwide, except on Antarctica. All species have four toes, three pointing forward and one back, well-adapted for perching. Most species are song-birds, with complex musical calls, but there are exceptions (e.g. crows). They show great diversity of form, behaviour and breeding biology.

GREENFINCH *Carduelis chloris*

Common European introduction

15 cm, 28 g. A robust olive-green finch with a pale heavy bill and prominent yellow on the sides of the tail and the edges of the closed wing. Males olive green, the brightest have a conspicuous yellow eyebrow and yellowish belly. Females browner, dull olive green, the duller a washed-out greenish brown. Juvenile and many immatures duller again, mainly brown, streaked darker with yellowish-green wash on rump and upper tail coverts. Flight undulating, looking heavy-bodied and short-tailed, and showing yellow wing flashes. Out of breeding season, often form large flocks in weed-infested crops. In breeding season, male repeatedly calls a harsh drawn-out 'dzwee'. Other common calls are a pleasant twittering 'chichichichit-teu-teu-teu-teu', sometimes just the 'teu' notes; and a sweet rising 'tsooet'. **Habitat:** Farmland, pine plantations, native bush and scrub fringes, pine and macrocarpa shelterbelts, parks and gardens. **Breeding:** Oct-Mar.



[Sp 315]



FINCHES

Fringillidae

153 species worldwide, except Australasia; 4 introduced to New Zealand.

instead of the usual 10 primary flight feathers. Most have small, neat, cup-shaped nests. Their songs are varied and musical.

Small, often colourful birds of open country with short, stout, conical bills and powerful gizzards for breaking up seeds. They have 9

Reading: Newton, I. 1972. *Finches*. London: Collins.

315. GREENFINCH *Carduelis chloris*

Plate 72

Size: 15 cm, 28 g
Distribution: Natural range is Europe, North Africa, the Middle East and western Asia; introduced to the Azores, southeastern Australia and New Zealand. Fewer than 100 Greenfinches were liberated in New Zealand by various Acclimatisation Societies in 1862-68. Despite the modest size of the recorded liberations, they soon became numerous and widespread through farmland of the whole country, and reached the Chathams before 1920. Now they are common through North, South and Stewart Islands and offshore islands. Uncommon on the Chatham Islands, and vagrants have reached the Kermadecs, The Snares and Campbell Island. They have colonised Norfolk Island. Greenfinches favour farmland shelterbelts, edges of pine plantations, orchards and large gardens. There is no evidence of regular internal migration, although a bird banded in Upper Hutt moved to Christchurch. There is considerable local movement of flocks in winter, ranging over open paddocks and to the seashore.
Population: Widespread and locally common.

Breeding: Pairs form in early spring as winter flocks break up, and males start singing in September. Sometimes Greenfinches nest in loose colonies, with several pairs nesting within a few metres. The nest is 1-2.5-11 m off the ground, near the tip of a spreading branch of a large conifer or oak, or in a fork towards the top of a gorse bush, matagouri, boxthorn or other small shrub or tree. It is bulky and untidy, built of twigs, dry grass, moss, rootlets and wool, and lined with finer material and wool. Most eggs are laid between mid-October and early February, with peaks in late October and early January in the North Island, and in late November and mid-January in the South Island, corresponding with the two clutches per year. They lay 3-5-6 pale blue eggs (22 x 14.5 mm) with scattered brown spots and blotches. The female alone incubates for 11-13-15 days and is fed on the nest by the male. Both parents infrequently feed the young by regurgitation during the fledging period of 13-16-17 days. The oldest Greenfinch recorded in New Zealand lived over 7.5 years, but in Europe

the record is over 12 years.
Behaviour: Gregarious in autumn and winter; flocks of 1000+ birds have been recorded. They often join House Sparrows at grain crops or stubble, or Goldfinches at paddocks full of weed or brassica seeds. Early in the breeding season, males have a characteristic butterfly-like display flight. The distinctive breeding season call of the male is a persistently repeated, harsh, drawn-out 'dzwee', reminiscent of a Long-tailed Cuckoo call. A common call, delivered from a prominent perch or in flight, is a pleasant twittering song: 'chichichichit-teu-teu-teu-teu'. Sometimes they simply repeat the 'teu' notes or utter a sweet 'tsooet' call.
Feeding: Diet is mainly seeds, supplemented with fruit buds and a few invertebrates. The main seeds eaten are maize, cereals, oilseed rape and other seeding brassicas, linseed, sunflowers, fodder radish, peas and hops, and weeds such as redroot, chickweed, storksbill and thistles, and they also eat pine seeds. Greenfinches are a minor pest, as they occasionally attack fruit buds of commercial crops such as apricots, peaches, nectarines and apples, but rarely cause serious damage.

They also eat small fruits of boxthorn and some native shrubs and trees (e.g. kahikatea). Insects such as beetles, flies and wasps are regularly eaten but never form a large part of the diet.
In the hand: Males are larger than females, e.g. wing 82-87-92 mm cf. 80-84-90 mm. Males have yellow outer webs of the three longest primaries (6-8), and the yellow on the inner (broad) webs of three outermost tail feathers clearly reaches to the black shaft, whereas in females a grey wash separates the yellowish-white inner vane from the shaft. Adult females have a brood patch in the breeding season. Adult males have mainly yellow outer webs of the alula, whereas this is mainly brownish-grey green in first-year males. Females are more difficult to age, but adults have green outer webs to their grey-tipped primary coverts, whereas these feathers are usually olive in first-winter birds. First-year birds often have incomplete moult of tail feathers or wing coverts, and so have contrast between old 'juvenile' feathers and new 'adult' feathers.
Reading: Gillespie, G.D. 1982. *NZ J Zool* 9: 481-486. McLennan, J.A. & MacMillan, B.W.H. 1985. *Notornis* 32: 95-100. MacMillan, B.W.H. 1981. *NZ J Zool* 8: 93-104. MacMillan, B.W.H. 1985. *Notornis* 32: 85-93.