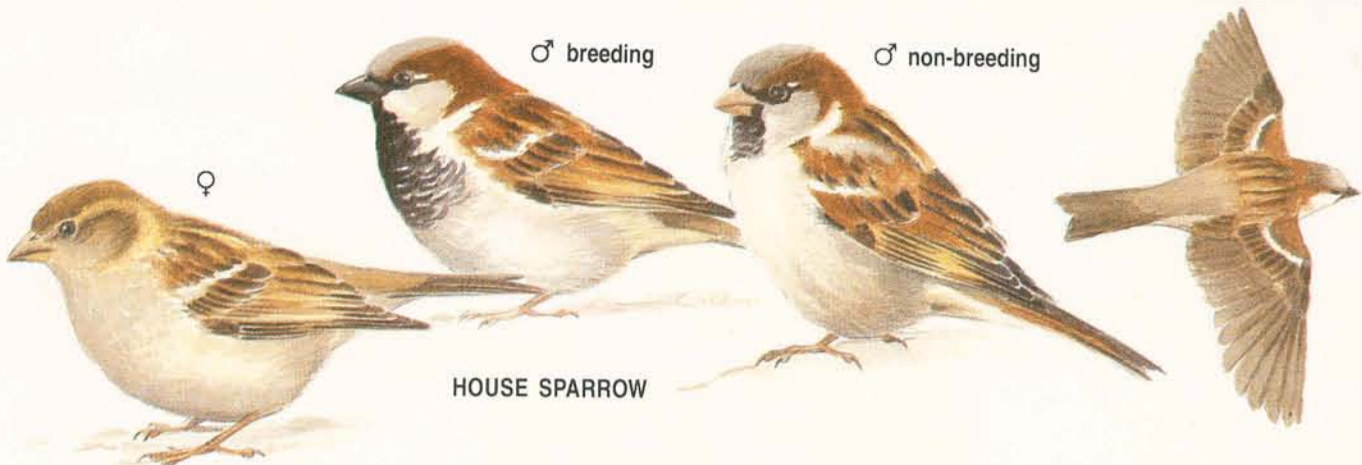


Passerines are the largest group of birds. They are small to medium sized land birds found worldwide, except on Antarctica. All species have four toes, three pointing forward and one back, well-adapted for perching. Most species are song-birds, with complex musical calls, but there are exceptions (e.g.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

**GOLDFINCH** *Carduelis carduelis*

Abundant European introduction

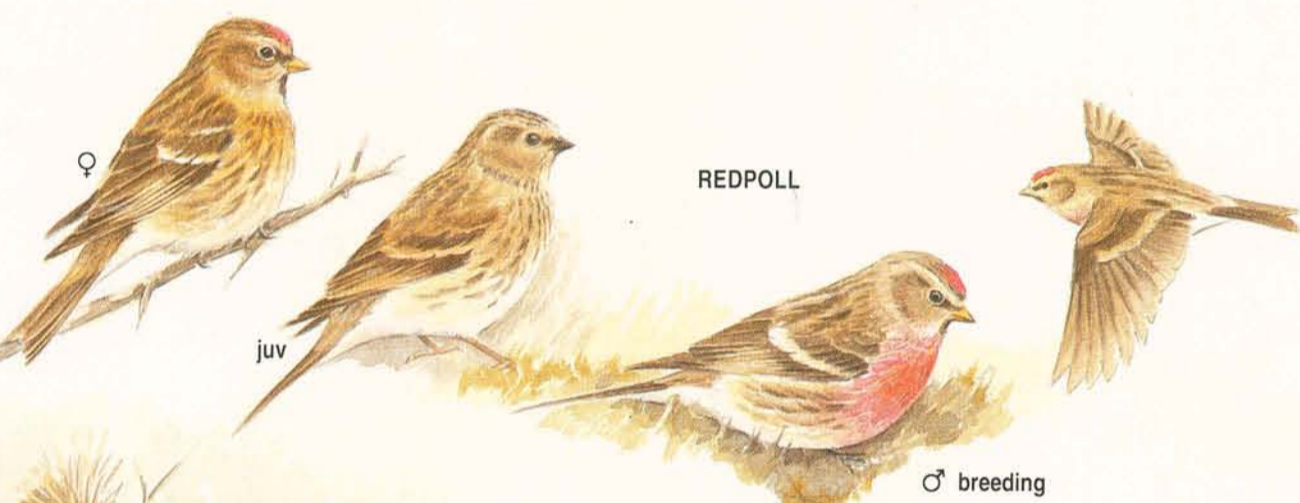
13 cm; ♂ 16 g, ♀ 15 g. Small finch with striking gold bars on black wings. Adults have brilliant red face, slightly more extensive on the male, especially above and behind the eye; white ear coverts and sides to neck; black crown and half-collar; upperparts and breast soft brown; rest of underparts and rump white; tail black, spotted white near tip. Juvenile pale buff, streaked and spotted darker; wings and tail as in adult. Outside breeding season, usually in flocks, often feeding on seeds of thistles or other weeds. Flight undulating. *Male song a pleasant liquid twittering 'tsitt-witt-witt'*. **Habitat:** Farmland, orchards, parks and gardens. **Breeding:** Oct–Mar. [Sp 316]



HOUSE SPARROW



CHAFFINCH



REDPOLL



GOLDFINCH

**FINCHES**

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

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

**Fringillidae**

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

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

**316. GOLDFINCH** *Carduelis carduelis*

Plate 71

**Size:** 13 cm; male 16 g, female 15 g  
**Distribution:** Natural range is Europe, North Africa, the Middle East and western Asia; introduced to Argentina, Bermuda, Australia and New Zealand. About 500 Goldfinches were liberated in New Zealand by various Acclimatisation Societies in 1862–83. They quickly established and were widespread by 1900. They are now common throughout the mainland and offshore islands, and have been recorded on the Kermadecs, Chathams, Antipodes, The Snares, Auckland and Campbell Islands, although possibly not established on the Kermadecs, Antipodes, The Snares and Campbell Islands. Recorded breeding on Norfolk Island, and vagrants from New Zealand or Australia have reached Lord Howe and Macquarie Islands. Goldfinches are in farmland, orchards and gardens from sea level to c. 500 m asl. There is no evidence of regular

migration in New Zealand, but there is some local movement and flocking in winter.

**Population:** Common and widespread at lower altitudes.

**Breeding:** Pairs form in spring after winter flocks break up, and males start singing in late September. The female builds the nest, a delicate cup of dry grass, fine twigs, moss, wool and cobwebs, lined with thistle down and wool. It is usually in the fork of a branch near the top or outside of a shrub 1–2–6 m from the ground. Many tree species are used, but peach, apple and conifer trees and grape vines are the most common sites. Laying is from mid-October to mid-February, during which some pairs raise two broods. They lay 2–4–5–6 pale blue eggs (17 x 12 mm) with reddish-brown spots and streaks. The female alone incubates for 11–12–13 days and is fed on the nest by the male. The chicks are

brooded by the female for the first week, and at first the male feeds the female, who in turn feeds the chicks. Later, both parents infrequently feed the chicks by regurgitation during the fledging period of 12–14–17 days and for 2–3 weeks after leaving the nest. Young can breed at 1 year old. The oldest Goldfinch recorded in New Zealand lived nearly 8 years.

**Behaviour:** Gregarious in autumn and winter, forming flocks of several hundred birds, often mixed in with other finches. In the breeding season, they defend a small area around the nest but do not maintain an exclusive territory. From late September to early February, males sing from a perch near their nest a pleasant, liquid, twittering 'tswitt-witt-witt', which can be elaborated into a vibrant, canary-like song. The call note is a shrill 'pee-yu', and the flight call is a soft, rambling version of the full song.

**Feeding:** Diet is mainly weed seeds, supplemented with invertebrates. The main seeds eaten are from weeds such as winged thistles and Scotch thistles in late spring and summer, redroot in autumn and winter, storks-bill and meadowgrass in spring. They sometimes damage strawberries when they peck seeds from the outside of ripening fruit, but they

cause little damage compared with other introduced birds. Invertebrates such as aphids, bugs, flies, caterpillars and spiders are eaten in small quantities all year, but are more important in spring and are an important part of the diet of young nestlings. When feeding on tall weeds and thistles, birds flutter from plant to plant and hang upside down to extract the seeds.

**In the hand:** Males are larger than females: wing 72–77–82 mm cf. 70–74–78 mm. Males have more extensive red on the throat and head, especially above and behind the eye. The nasal bristles of adult males are black, whereas they are grey to blackish grey in adult females. Most first-year males also have black nasal bristles, and most first-year females have light grey bristles, but some intermediate juveniles are not possible to sex. In autumn, adults moult wing and tail feathers, whereas juveniles have slightly worn and distinctly pointed outer tail feathers, and at least some of the greater coverts are not moulted and so are tipped buffish white rather than yellow or white as in adults.

**Reading:** Campbell, P.O. 1972. Unpubl MSc thesis, Massey Univ. Middleton, A.L.A. 1970. *Emu* 70: 159–167. Niethammer, G. 1970. *Notornis* 17: 214–222.