

— Passerines: Perching Birds —

The Passeriformes is by far the largest order of birds, comprising close to 6,000 species. Known loosely as “perching birds”, its members differ from other orders in various fine anatomical details, and are themselves divided into suborders. In simple terms, however, and with a few exceptions, passerines can be described as small birds that sing.

The word passerine derives from the Latin passer, for sparrow, and indeed a sparrow is a typical passerine. It has an anisodactyl arrangement of toes: three facing forward, two facing back, and all meeting the foot at the same level. It can also sing – though admittedly some sparrow species are more tuneful than others – by virtue of the specialized syrinx muscles around its trachea.

Passerines are thought to have evolved some 55 to 60 million years ago in Gondwana. The first great speciation took place in Australasia and New Guinea, later expanding westwards into Eurasia and Africa with an explosion of new lineages. Today, anything from 80 to well over 100 different families are recognized, with the taxonomy of many groups a matter of ongoing research. Species range in size from the hefty Common Raven (*Corvus corax*), at 1.5 kg (3 lb 5 oz) and 70 cm (2 ft 3 in), to the diminutive Short-tailed Pygmy Tyrant (*Myiornis ecaudatus*), at just 4.2 g (0.14 oz) and 6.5 cm (2 ½ in). The majority, however, are thrush-sized or smaller, with the average passerine being smaller than the average bird in any other order.

Authorities divide passerines into two or three sub-orders according to their evolutionary histories. Much the largest is the Passeri, which comprises some 5,000 species, known as oscine passerines. These include most of the familiar families, from sparrows (Passeridae), finches (Fringillidae), and thrushes (Turdidae), to swallows (Hirundinidae), starlings (Sturnidae), and Old World warblers (Sylviidae). Oscine derives from oscen, Latin for songbird, and this group has a highly developed syrinx muscle, responsible for the complex sounds of such celebrated songsters as larks, nightingales, and lyrebirds – though some noises, such as those of crows (Corvidae), may not appeal to the human ear.

The Tyranni is a smaller sub-order that comprises about 1,000 species, known as suboscines. These are distinguished from oscines by the structure of the syrinx, and DNA research has confirmed the different evolutionary origins of the two groups. Most suboscines are found in the Tyrannides, a South American group that includes such families as the tyrant-flycatchers (Tyrannidae), cotingas (Cotingidae), manakins (Pipridae), and ovenbirds (Furnariidae). A separate Old World group, the Eurylaimides, including the broadbills (Eurylaimidae) and pittas (Pittidae), is found mainly in tropical regions around the Indian Ocean.

One family of passerines remains in taxonomic limbo. The New Zealand wrens (Acanthisittidae) comprise just two species, endemic to New Zealand. Though outwardly similar to Old World wrens (Troglodytidae), studies have revealed that they represent an ancient lineage that pre-dates the speciation of later passerines. Traditionally placed among the suboscines, some authorities now believe these diminutive birds warrant their own sub-order: the Acanthisitti.

▼ **Size of order**
 Number of species in order
 Percentage of total bird species

Passeriformes
 5,899 species
 60%



◀ **World distribution of Passeriformes**

- Passeri (oscine passerines)
- Tyranni (suboscine passerines)
- Acanthisitti (New Zealand wrens)



The South Island Wren (*Xenicus gilviventris*) is one of just two extant species in the sub-order Acanthisitti, both confined to New Zealand. Four other species became extinct as a result of human colonization; two of them within the last century.

Cardinal virtues

The Northern or Common Cardinal (*Cardinalis cardinalis*) belongs to the cardinal family (Cardinalidae) of passerines. Like the various tanagers, grosbeaks and other members of this diverse group, it has a thick, strong bill adapted to feeding on seeds and fruit. Males, from whose vivid red plumage the family is named, are much more colourful than females.



Insect-eating voyager

The Common Redstart (*Phoenicurus phoenicurus*) was once thought to be a member of the thrush family (Turdidae), but is now known to belong to the Old World flycatchers (Muscicapidae). Its narrow bill is adapted to eating insects, and like many insect-eaters that breed in northern Europe and Asia, this species migrates to Sub-Saharan Africa in winter, where it is assured of a constant food supply.



Multi-purpose passerine

The Common Magpie (*Pica pica*) belongs to the crow family (Corvidae), which includes many of the larger passerines. Like many crows, it is a generalist, with a robust bill adapted to feeding on anything from small animals to eggs, carrion, insects, and grain. Crows are among the most intelligent of birds, and this species is the only non-mammal ever to have passed a mirror self-recognition test.



Passerine predator

The Bokmakierie (*Telophorus zeylonus*) belongs to the bushshrike family (Malaconotidae) of African passerines, notable for their bright colours and the synchronized calls with which pairs duet. This family is closely related to the true shrikes (Laniidae). Like them, it has a partly carnivorous diet, using a hook-tipped bill to capture small lizards, birds, and frogs, as well as large insects.



Broad of bill

A pair of Black-and-red Broadbills (*Cymbirhynchus macrorhynchos*) perch on a rainforest branch in Sabah, Malaysian Borneo. Broadbills (Eurylaimidae) are one of just three Old World families in the suborder Tyranni, or suboscine passerines. Most are insect-eaters, and use their broad, flat bills to snatch their prey in flight – either from the air or from among the forest foliage.



Oven ready

The mud nest of the Rufous Hornero (*Furnarius rufus*) resembles an old wood-fired clay oven. This distinctive structure explains the common name “ovenbird”, often used for the Furnariidae family of suboscine passerines to which this species belongs. In fact, most other members of this South American group build their nests from sticks. The Rufous Hornero is the national bird of Argentina.



Champion songster

The impressive tail plumes flaunted by the male Superb Lyrebird (*Menura novaehollandiae*) in its courtship display make this Australian species, at 1 metre (3 ft 3 in) in length, the longest of the Passeriformes (and second in weight only to the ravens). Lyrebirds also boast the greatest vocal virtuosity of any bird. Their repertoires include not only the songs of numerous other species but also many non-avian sounds, from human voices and musical instruments to camera shutters and even chainsaws.