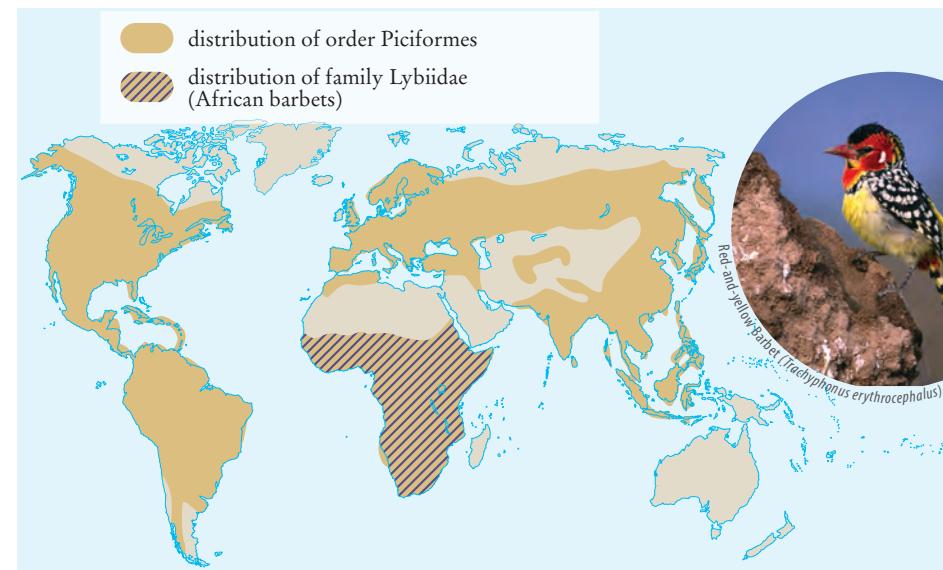
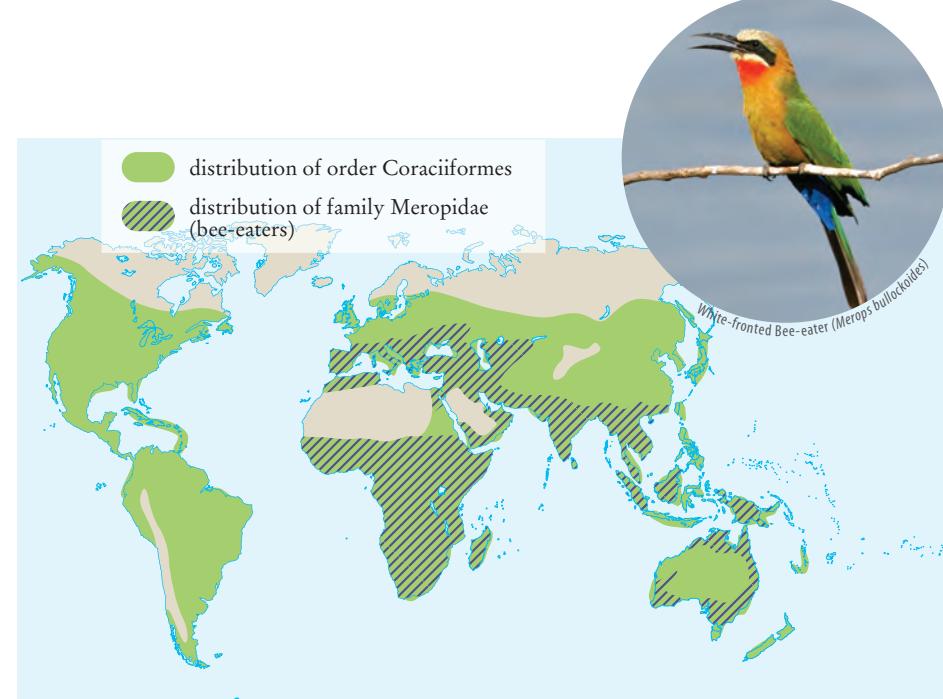


Kingfishers to Mousebirds

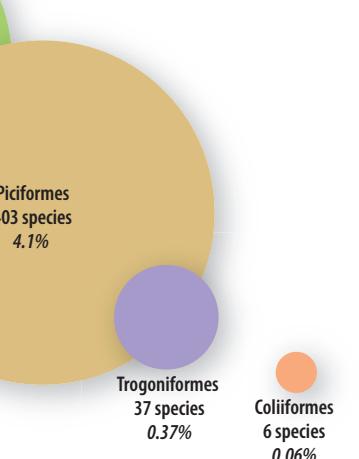
The orders featured on this spread include many of the planet's most eye-catching bird families. Some, such as kingfishers and rollers, are known for their dazzling plumage. Others, such as toucans and hornbills, sport preposterously big bills. Though smaller species in some groups may superficially resemble songbirds, all have a number of key anatomical differences from the Passeriformes, and none can sing.

These orders also share many features of their breeding behaviour, with the majority of families and species nesting in holes, and many performing flamboyant courtship displays. The exception to this rule are the Coliiformes of Sub-Saharan Africa, which are neither colourful nor cavity nesters – they build a simple cup-shaped nest in foliage – and have an evolutionary history that sets them apart from other near-passerines.



▼ Size of orders

Number of species in order
Percentage of total bird species



◀ Coraciiformes: kingfishers, rollers, allies

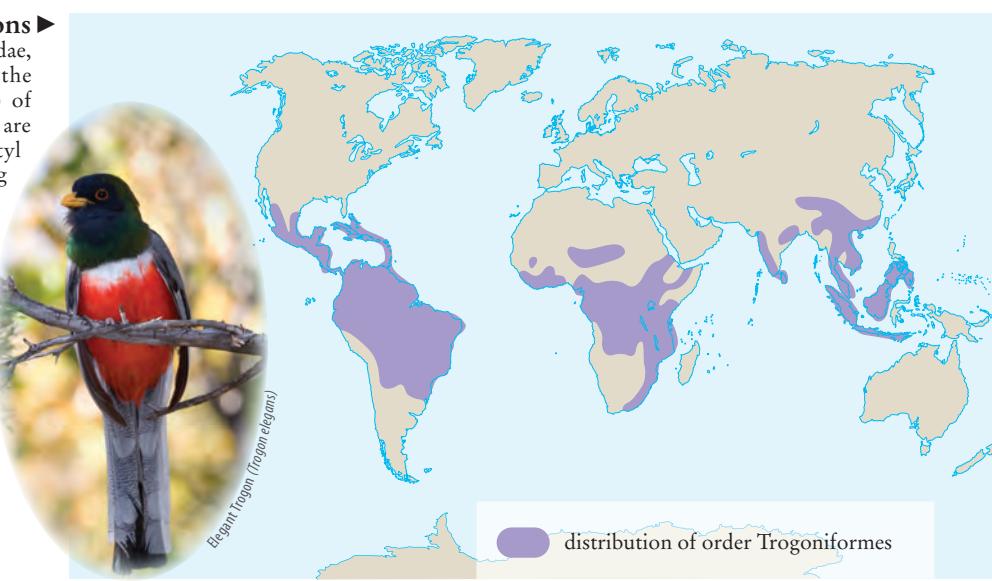
Most families in this order are confined to the Old World, especially tropical and subtropical regions. Kingfishers (Alcedinidae) are striking birds with large heads and powerful bills. They hunt from a perch: some for fish, others for terrestrial prey. Bee-eaters (Meropidae) catch insects in agile flight. Most are highly colourful, with slender bodies and often elongated central tail feathers, and nest in large sandbank colonies. Rollers (Coraciidae) get their name from the aerial courtship acrobatics in which they flaunt their bright blue plumage. Hornbills (Bucerotidae), found in tropical and subtropical Africa and Asia, are generally larger birds with hefty bills that, in some species, carry a prominent casque. They prey on everything from fruit to small animals. New World coraciiformes are – except for a few kingfishers – confined to the tiny todies (Todidae), of the Caribbean, and colourful motmots (Momotidae), of Central and South America.

◀ Piciformes: woodpeckers, toucans, allies

Nearly all birds in this order have zygodactyl feet – two toes forward and two back – which offer more stability when climbing tree trunks. Most are insectivores and, apart from jacamars (Galbulidae), do not grow down feathers. The best-known and largest family is the woodpeckers (Picidae), which also includes the piculets and wrynecks. Its members are found worldwide, except Madagascar, Australasia, and the polar regions, with most frequenting forest or woodland – though a few have adapted to treeless habitats. Other families include the fruit-eating barbets (three families) and toucans (Ramphastidae), the latter confined to the Neotropics and equipped with a huge but lightweight bill. The honeyguides (Indicatoridae), of Africa and Asia, are brood parasites and uniquely able to digest beeswax.

► Trogoniformes: trogons

Trots make up a single family, the Trogonidae, which numbers seven genera, including the spectacular quetzals (*Pharomachrus* spp.) of South and Central America. Their weak feet are unique among animals in having a heterodactyl toe arrangement: first and second toes facing backwards; third and fourth toes forwards. They are colourful but retiring birds that inhabit tropical forests worldwide – with the greatest diversity in the Neotropics – and use their short, broad bill to feed on insects and fruit, generally gleaned from the branches in a brief fluttering flight. Trots are typically located by their soft, insistent call, given from just below the canopy. All species have soft, richly coloured plumage – often featuring greens and reds – and are strongly sexually dimorphic, with females much duller than males.



► Coliiformes: mousebirds

Mousebirds comprise a single family (Coliidae) of just six species, which has no clear links with other modern birds and is all that remains today of a much more diverse prehistoric line. Entirely confined to Sub-Saharan Africa, they are the only bird order endemic to that continent. These smallish, slender birds have long tails and soft, greyish-brown plumage. They feed on buds, fruit and berries, clambering acrobatically among the foliage and often scurrying around at low-level like rodents, hence their common name. Other characteristic features include a small crest and short, stubby bill. Small flocks frequent lightly wooded country, moving from one feeding area to another in direct flight, and often sunbathing on top of bushes to dry out after rain.



▼ Digging deep

The Coraciiformes, Piciformes and Trogoniformes all nest predominantly in holes. Many species, including most woodpeckers and trogons, use tree holes. Others, including most bee-eaters and many kingfishers, use a hole in a sand or earth bank. Most are “primary cavity-nesters”, which means that they use their bill to chisel out their own hole, rather than taking over an existing one. Few make a nest, though some may line the hole with a little plant material. Eggs are generally white, for better visibility in the darkness.

Perhaps the most peculiar nesting arrangement is that of the Bucerotinae hornbills. The female seals herself into the egg chamber by blocking up the entrance hole, using a mixture of mud, droppings and fruit pulp, leaving only a tiny slit through which the male can feed her. She remains there for the entire incubation, until the chicks have grown too large for her to remain inside the chamber with them, and undergoes a complete moult in the process.

