

## MOULTING OF BIRDS

Once the feathers have finished growing, they are lifeless. They are worn down by constant wear and tear. They must therefore be replaced, a process known as moulting. The loss of flight feathers can affect the ability to fly. The moulting process varies from species to species.

Moulting can be **complete**, where the bird replaces all its feathers during the same moulting period, or **partial**, where only a few feathers are replaced.

Each bird has a **set of feathers** worn during the resting period. More vibrant, colourful and possibly elongated feathers indicate the mating season in many species.

- **Basic plumage:** The plumage renewed after mating, and in many species it is the permanently worn plumage.
- **Breeding plumage:** during the mating season, many species wear more ornate feathers. A few species have so-called decorative feathers, which do not aid flight, but do aid mate choice. Birds usually wear their mating plumage only for a short time of the year, and try to get rid of it by shedding it at the beginning of the chick-rearing period.

**Young chick:** In most land birds, the first plumage of a hatchling consists of down feathers. In the case of ducks and swans, the outer coverings are thick and fluffy, protecting the young from freezing while floating in the water. The down feathers are replaced by the first juvenile feathers after a week or two. Larger birds, such as gulls, hawks and eagles, take much longer to acquire their first true feathers.



**Mute swan (*Cygnus olor*) chicks**

Source: <https://pixabay.com/photos/moult-swans-cygnets-young-animals-7264376/>

Birds usually time their moulting to avoid periods of high energy demand, such as rearing chicks or migration.

### **Determination of age**

Some species take one year to acquire their adult plumage. Others take several years (eagles, for example), so the plumage helps to determine the age of the individual.

### **Moulting cycle**



**Common blackbird (Turdus merula)**

*Source: <https://pixabay.com/photos/animal-bird-blackbird-avian-5636600/>*

**One complete moult a year:** e.g. flycatchers (Muscicapidae), falcons (Falconidae), hummingbirds (Trochilidae), jays (Garrulus glandarius), owls (Strigidae), swallows (Hirundinidae), thrushes (Turdidae), woodpeckers (Picidae)

**One complete and one partial moult before the breeding season:** Birds in this group, such as the American sparrows (Emberizidae) and the sylviid warblers (Sylviidae), shed all their feathers after the breeding season and put on their basic plumage. Before the next breeding season, their body feathers are partially shed, resulting in a vibrant, mating season plumage for males. The females do not usually change to mating feathers.



**Yellowhammer (Emberiza citrinella)**

Source: <https://pixabay.com/ru/photos/citroms%3%A1rm%3%A1ny-mad%3%A1r-h%3%B3-%3%A1llat-7677813/>

**Two complete moult a year:** only a few species undergo two complete moults a year. The majority of these live in areas where the environment causes significant feather damage. For example, the moustached warbler in dense reeds or the bearded reedling.