

Mallard Duck

Anas platyrhynchos



Photo credit: Darren Colello

By Anna Goode

The mallard duck is the best-known species of wild duck in the northern hemisphere. The species is distributed mainly in wetlands throughout North America, Europe, and Asia and has been introduced to other parts of the world. It is found across Canada but its numbers are greatest in the Prairie provinces. These numbers are currently being threatened by drought and changes in migration patterns, wintering ranges, and habitats. Plans such as the North American Waterfowl Management Plan (NAWMP) have been launched to restore duck populations and the wetland ecosystems so essential to their survival.

Characteristics

The mallard duck is approximately 60cm (2 ft) long with a wing span of 82-95 cm (32-37 in.) The male duck (drake) is brightly coloured from September to June during breeding season. During this time, the drake stands out with a brilliant glossy green head and upper neck, separated from a light grey breast and a rusty coloured back by a white ring resembling a collar. Its bill is yellowish green. The drake exhibits two distinct black feathers in the centre that curve back, giving the male his characteristic curly tail. After breeding season, the drake starts to lose his colourful feathers and is unable to fly. Until breeding season returns in August, the male will more closely resemble the female.

The female mallard (hen) is much less colourful and smaller than the drake. The hen's back and breast is a darker brown than the drake, and she does not have the same distinct curly tail. The hen has an orange bill, occasionally marked with black spots, and orange legs and feet.

Both the drake and hen have a distinguishing speculum (a bright blue rectangular spot of colour) and a white bar on the bottom edge of the wing at the point where it meets the body.

Life Cycle

Mallards select their mates (pair bonding) in the fall but do not begin to breed until late March or early April of the following year. The female, accompanied by her mate, searches for a territory

which is usually one close to where she herself was hatched. Sometimes the female will return to the same nesting site year after year. The nesting site is sometimes close to a source of water but more often a small distance away in an area lined with bits of rushes, grass, weeds, and other organic material. The nest, built solely by the female, is usually somewhere with good cover such as thick grass or shrubs or in the hollow of a tree up to 12 m (40 ft) off the ground.

The eggs, which may vary in colour from dull green to almost white, are laid one per day until the clutch is complete (an average of about 9 eggs). After the last egg has been laid, incubation begins. This ensures that all the eggs will hatch at approximately the same time. During the incubation period of 22-28 days, the female sheds down or fine feathers from her belly to provide warmth to the eggs and to protect the eggs from predators such as crows and magpies.

At hatching, the ducklings look like wet little balls of feathers with brown backs spotted with yellow patches. Their faces and underbellies are yellow except for a dark spot on one ear and a brown line through the eye. As soon as the ducklings are dry, the female leads them to the nearest water source, a sometimes difficult journey as slower ducklings may get lost in grass or be taken by predators. Mother ducks stop frequently to make sure their broods, or groups of ducklings, are protected; if threatened by a predator, the hen will pretend to be injured, squawking and flapping on the ground. This will successfully distract a predator and keep him away from her young. Once the brood has reached the water, the female will lead them to feeding areas where the young find their own food, typically small crustaceans, insects, and tiny plants.

Females may re-nest up to three or four times if the nest is destroyed, but will likely lay fewer eggs in each nest because their energy reserves are down. They will only brood once a year. About 10 weeks after the ducklings hatch, the young will lose their soft down and grow their adult feathers in the late fall. They are able to fly after only two months of life. Young male mallards may not gain their full mating brilliance until their second year of life, when the mother will abandon them to survive on their own. After breeding season is over, the mature mallards will shed their old feathers and grow an “eclipse” (basic) plumage. They will be unable to fly until their new feathers have grown in, remaining in their nesting territories for the first ten days of the incubation period, after which they abandon the females.

Habitat

Mallards prefer habitats on natural grasslands surrounding reed-bordered sloughs, marshy areas, or even potholes on the prairies. This is because the mallard is a surface-feeding bird—also known as a “dabbling duck”—often seen in the tipped-up position with its tail held vertically out of the water while it looks for food just beneath the surface. Although the mallard may dive underwater in an emergency, it rarely does.

The mallard is found across Canada but its numbers are greatest in the Prairie provinces. Mallards have spread eastward in Canada and are now established in New Brunswick, especially along the St. John River and in the northernmost forest zones in eastern Canada and along the lowlands of James Bay and Hudson Bay. They are rarely seen in Prince Edward Island, Newfoundland, or Labrador, where they have been replaced by the closely related American black duck (*Anas rubripes*).

During winter, most mallards migrate to parts of the central and southern United States where most lakes and ponds stay ice-free. Mallards may also winter in southern Ontario and southern British Columbia, and as far south as northern Mexico. This fall migration usually begins in late September or October.

Behaviour

The call of the female mallard is a loud “quack” similar to that associated with farmyard ducks. The call of the male is a softer, low-pitched “rhab-rhab.”

In courtship, a few males will surround a female and shake their bodies as they swim alongside. The female will follow her chosen male and make various head movements and calls.

Primarily vegetarians, mallards feed day and night on leaves, seeds, berries, corn, bulrushes, wild rice, wheat, primrose, willows, seeds of water elm, oak, hackberry as well as worms, tadpoles, small frogs, small fish, mollusks, insects, freshwater snails and fish eggs found in muddy areas on the edges of water sources. They will even scrounge in deeper water to feed from the mud below, using their bill as a very efficient filtration system similar to that of the baleen whale.

Mallard ducks know when it is time to migrate by instinct as well as by observing changes in the length of the days, weather conditions, or diminishing food sources due to snow and ice cover. During migration, mallards feed on agricultural crops and look for ponds, shallow marshes, and flooded fields.

Threats

The continuing loss of nesting habitat, in particular wetlands and nearby grassy uplands, has caused a long-term decline in many regions in what is usually considered the hardiest and most adaptable duck. Droughts during the 1980s and 1990s created unfavourable conditions for Mallards, and many former wetlands have dried out and are now used for farmland. In some regions up to 70 percent of wetlands have been lost due to human activity.

Concern for the long-term decline in prairie mallards and other ducks like the American black duck has launched a continent-wide effort to benefit waterfowl and other wetland wildlife. The North American Waterfowl Management Plan (NAWMP) is an international conservation plan with joint projects involving Canada, the United States, and Mexico. The aim is to restore waterfowl populations including the mallard and other ducks to 1970 levels by focusing on breeding habitats, migration, and wintering ranges. The related Prairie Habitat Joint Venture hopes to restore over 1.4 million hectares of breeding habitat in Manitoba, Saskatchewan, and Alberta.

What We Can Do To Help

- Volunteer to help organizations like the Northwest Wildlife Preservation Society.
- Join Ducks Unlimited Canada (DUC) and support DUC's wetland conservation work. Check out the Ducks Unlimited Canada's website at <http://www.ducks.ca>.
- Avoid feeding wild ducks. It increases the chance of negative human/wildlife interactions, reducing the ducks' natural foraging abilities and makes them dependent on humans for survival.
- Do not draw attention to a nest because it may increase the chances of it being destroyed by a predator.
- Unless it is part of your job and you have protection, DO NOT handle ducks or other wildfowl. The recent outbreak of avian influenza has been affecting large numbers of

chickens and ducks in many parts of the world. So all members of the general public, especially children, should avoid touching or handling live or dead ducks.

- If a female mallard and ducklings come into your backyard, DO NOT put food out for them because this may discourage them from seeking out a safer, more natural wetland habitat. Better still, find ways to keep ducks out of your yard.

Other Interesting Facts

- A cross between two species of duck is called a “hybrid.” The mallard duck has “hybridized” with about 50 species of ducks and geese. So that mallard you see on the pond might not be a purebred.

Where & When to View the Mallard Duck

Given their wide seasonal ranges and their preference for wetlands and open water, there are many opportunities to view mallard ducks. While found throughout the Pacific Northwest including parts of the B.C. southern interior, the largest wintering concentrations are in the Fraser River Delta. In urban habitats year-round, the mallards are prevalent in ponds and parklands.

Bibliography

Book Resources:

Baron, Nancy and John Acorn 1997 Birds of Coastal British Columbia (Edmonton: Lone Pine).

Campbell, R. Wayne, et al. 1990 The Birds of British Columbia, Vol. 1. (Vancouver: UBC Press).

Web Resources:

Hinterland Who's Who website – a good summary including a range distribution map.
<http://www.hww.ca/hww2.asp?pid=1&id=43&cid=7>

MarineLand Canada website – a basic overview of the species including important facts and information. <http://www.marinelandcanada.com/educational/birds/domesticmallard>

Ducks Unlimited Canada website – a thorough overview of Canada's wetland species and what can be and is being done to help conservation. <http://www.ducks.ca>

North American Waterfowl Management Plan (NAWMP) – this website profiles the NAWMP initiatives in Canada. <http://www.nawmp.ca/>

Environment Canada (Pacific Wildlife Research Centre, Delta BC) website – excellent article “Waterfowl Species Abundance” on recent population and ecology surveys of British Columbia's waterfowl. http://www.ecoinfo.ec.gc.ca/env_ind/region/ducks/ducks_e.cfm#ducks

Cornell University Bird Guide website – this bird guide is an excellent resource, including range maps, photos, and range maps.
http://www.birds.cornell.edu/programs/AllAboutBirds/BirdGuide/Mallard_dtl.html

