

# BLOCK 11



# WETLAND BIRDS



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## Wetland birds

Wetlands in the broad sense of the term are the areas with landscape characterized by the presence of shallow or overgrown water reservoirs. These include, among others: flood valleys of rivers, marshy forests, open peat bogs, floodless basins of the terrain, periodically flooded depressions and coastal areas of lakes. These are areas where the water level is close to the level of the ground, and thus covering vegetation (water, water and mud plants and zones of coastal water reservoirs) is adapted for partial immersion. Among them, we can find high clumpy rushes formed mainly by sedges, reed manna grass *Glyceria maxima* and reed. In the higher areas, there are often clumps of willow shrubbery surrounded by lush herbaceous vegetation. The nature of the vegetation depends on the elevation of the area above the water level. The plants typical of these areas include: marsh marigold *Caltha palustris*, buckbean *Menyanthes trifoliata*, common horsetail *Equisetum arvense*, lots of grasses and mosses. The swamps are inhabited by a specific, rich group of birds, mainly from anatidae, snipes, gulls, terns, streams and various songbirds.

From the ecological point of view, these areas are homes of many rare animal species. They also play the role of natural biological filters that retain impurities and also retain a retention function, stabilizing the local water balance. At the same time, they belong to the most endangered types of environments, which are endangered by the intensification of agriculture, regulation of rivers or runoffs of harmful substances on a scale exceeding the self-regulatory capacity of these areas. Wetlands, as habitats very sensitive to water shortages, quickly disappear after drainage and regulation of rivers to prevent their floods. It is also adversely affected by the construction of dam reservoirs, which by preventing periodic river floods cause drying of the swamps below them.

It is enough to observe puddles after heavy rains, in order to imagine very easily how a swamp can arise and how quickly it can disappear. Puddles as the water infuses into the ground and evaporation first become muddy and then gradually dry up. Wetlands cover about 13%

of our country's area. 70% of birds that live with us are associated with them. Ireland has many extensive areas which are recognized as areas important for the protection of birds on a European scale.

Species of birds inhabiting marshy areas in Ireland are the white-tailed eagle *Haliaeetus albicilla*, the marsh harrier *Circus aeruginosus*, the ruff *Philomachus pugnax*, the swan *Cygnus*, various species of ducks, the little egret *Ardea garzeta*, grebes *Podicipedidae*, cormorants *Phalacrocorax carbo*, and songbirds such as savi's warbler *Locustella luscinioides*, common reed bunting *Emberiza schoeniclus*, Eurasian reed warbler *Acrocephalus scirpaceus* and sedge warbler *Acrocephalus schoenobaenus*.



FIG. 1. WHITE STORK  
Autor: Marek Kołodziejczyk.



It is worth paying attention to the characteristic adaptations in the construction of many wetland birds to this specific environment. These birds have a long, straight or slightly curved beak that can penetrate the mud without fear of spraying the nostrils. The beak is innervated and provided with sensory bodies, which facilitates the location of the victim in the ground (the birds cannot look in the mud), and the soft end of the beak acts like pliers, with which birds such as Eurasian curlew *Numenius arquata*, waders *Tringa* or Common snipe *Gallinago* extract different invertebrates from the substrate. Long and sometimes very long legs (the great egret *Ardea alba alba*, Eurasian curlew *Numenius arquata*, Common White Stork *Ciconia ciconia*.) facilitate wading in shallow water.

In the aquatic environment, birds deal in a different way primarily with the water surface, ie ducks, geese and swans. Their beaks have a completely different structure. In birds of prey, which include a mallard duck *Anas platyrhynck*, the beak is wide, flattened, covered with sensitive skin, with overlapping lamellar appendages at the edges. These birds, searching for food in water, let it pass between the plates, causing them to stop on the plates of invertebrates and plants that constitute their food. This beak therefore acts like a sieve.

Observation of nature in wetlands provides many adventures, but it is not possible to move around independently without a guide who knows the area well. Moving around swamps and peat bogs can be dangerous, so you should only stay there during a specific time of the year. Information on whether there is a possibility to visit a designated wetland can be obtained in the National Parks and Wildlife Service (<https://www.npws.ie/protected-sites>). Wet meadows



FIG. 1. SNIPE  
Źródło: Płxabay

are relatively safe to explore, however, it is important to remember to buy suitable waterproof footwear and clothing appropriate to the weather conditions. Of course, children can go there only when accompanied by an adult. It is also worth remembering that in areas with high humidity, there are many mosquitoes, gnats and other insects, so you should take care of appropriate protective measures.

If you are interested in the vegetation found in wetlands, it is best to visit these places in the late spring period, because it is the

time of flowering most species of plants, which will make it easier to find and recognize them. If there is a pond or lake in these places, it is worth paying attention to which plants are closer and which are further from the shore of the water reservoir. We will then be able to determine which of them prefer more or less boggy terrain. However, if the object of our interest are birds, then we should go on a trip a little earlier - preferably in May, when most species of these areas already settled breeding sites. Small birds sing intensely when designating their territories. In addition, most of them have colorful plumage at the time, i.e. mating robe. However, we must remember that during this period the area may be more hydrated due to the remains of the spring backwaters. Of course, we must behave in such a way as not to scare the birds and not



stay too long in the place where we suspect or know that there is a nest with eggs or chicks. Startled birds often leave nests in which there are eggs, and even chicks that have just hatched. If we move in an area full of ponds or water reservoirs (ponds, lakes), let us pay attention to their size, the nature of the shoreline and the surrounding vegetation. We will then be able to determine which of them are more attractive to birds and why. Larger and more diverse reservoirs, give better opportunities for hiding and foraging. Similar observations can be made by moving over riverside areas - the more the coastline is varied, and the diverse vegetation, the greater the probability of encountering different species of birds or other animals.

Natural, unregulated rivers flow meandering along the way, which significantly extends their course. In addition, bends and shallows form along the way, often transforming into islands, and characteristic willow bushes appear on the banks. All this creates excellent conditions for aquatic and aquatic animals. In addition, such watercourses without artificial housing may spread over riverside areas, retaining excess water and thus reducing the risk of flooding on other riverside areas inhabited by humans. Therefore, there is a need to preserve such natural retention reservoirs. Periodic flooding of rivers is a recurring phenomenon, therefore construction of houses should be avoided on river areas adjacent to the river embankments, treating them as natural flood control reservoirs.

In 1971 in Iran, in Ramsar, an international convention (World Wetlands Convention) was signed to protect wetlands on earth and make people aware of their importance (including economic). The Convention has so far been ratified by 123 states, including Ireland in 1985. The anniversary of the signing of the Convention, which falls on February 2, is now celebrated as the World Wetlands Day.

Equally important for nature conservation are river valleys, especially riverine forests that are biodiversity-friendly tropical forests of Europe.

Unfortunately, the situation of many valuable wetland areas in river valleys is deteriorating regularly, as much of it is not sufficiently protected. As a result of drainage works, intensification of agriculture and progressing urbanization processes, they are destroyed. A serious problem in the protection of wetland areas is often their unregulated ownership status, hindering protective activities, as well as the need for active forms of protection, such as grazing and mowing, which in turn prevents the overgrowing and moulting of these areas. At the moment, worldwide riverside wetlands are particularly threatened by river regulation projects such as damming for water supply to human populations.

Maintaining the proper state of wetlands is important for maintaining biodiversity, as a refuge for many animals that have specialized in the use of food resources acquired in this environment. Drying these areas will result in the extinction of a huge number of plant and animal species. Wetlands are also important for the human population, as an important resource of fresh water, which we are missing: The Ramsar Convention Secretariat warns that unless measures to protect wetlands are intensified, by 2050 in at least 60 countries the situation will worsen. with a shortage of water. At the same time, the threat of floods will increase significantly at this time. Although efforts to protect wetlands have increased in recent years, from around 600-900 million hectares of wetland ecosystems that collect fresh water in the world, only 60-70 million



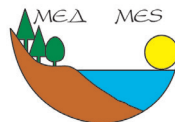
hectares, or less than 10%, are protected. Over half of the wetlands in the world have been destroyed in the last 100 years. At the same time, the consumption of fresh water resources has increased six-fold, while doubling the human population. Today, over 800 million people in the world do not have access to clean fresh water. If people's approach to wetlands does not change, in 2050 2 out of 3 people in the world will live in such conditions. (Source: Ramsar Convention of February 2, 1971).





This material was prepared as part of the project „We live in harmony with nature. The educational program for teachers of pre-school and primary education”. The project involved selected non-governmental organizations involved in the protection of birds associated as part of the international BirdLife International federation. In addition to the National Society for Bird Protection, which ran the project, the Spanish Ornithological Society (SEO), the Slovak Ornithological Society (SOS), the Macedonian Ecological Society (MES), the Czech Ornithological Society (CSO) and BirdWatch Ireland (BWI) were involved. The University of Gdańsk became the substantive partner of the project responsible for creating materials for teachers.

BirdWatch Ireland is a non-governmental organization with a public benefit status, dealing with the protection of wild birds and the places where they live. The aim of the Society is to preserve the natural heritage for the benefit of present and future generations. BirdWatch Ireland is the Irish partner of the global federation of bird protection societies - BirdLife International.



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