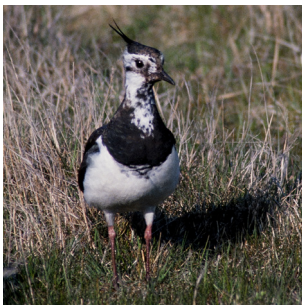
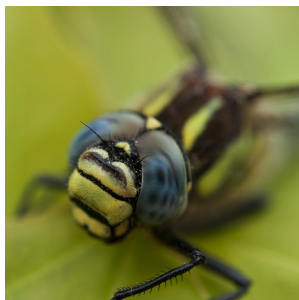


WETLANDS



Northern lapwing (*Vanellus vanellus*) is one of many wading birds that uses wetlands as breeding sites.



Hairy dragonfly (*Brachytron pratense*). Newly restored wetlands are soon inhabited by dragonflies and water beetles.



Pool frog (*Rana lessonae*). Lives in small shallow wetlands near the coast.

WHY DO WE NEED WETLANDS?

A large part of the wetland areas have disappeared from the agricultural landscape during the past hundred years or more. In Sweden $\frac{3}{4}$ of the wetland areas have been lost during the past 200 years due to large scale ditching of wetlands since the 19th century. One of nature's important water cleaning functions has thereby been lost and many species have lost their homes. Wetlands rich in vegetation slows down the water flow and functions as nutrient traps for mainly nitrogen and phosphorus. As the water in wetlands warms up early during the spring a lot of food is produced for many insects, amphibians, fish and birds. Wetlands also have a high value for the landscape picture and recreation.

WHERE SHOULD YOU BUILD A WETLAND?

Has there been a wetland in the area before? Is there any wetland indicated on old maps? Does the land flood during the spring? Is the ground water logged? If the answer is yes to any of these questions it is probably a good place to recreate a wetland.

HOW IS A WETLAND BUILT?

The main aim and function of a wetland can differ, therefore the design of a wetland will differ too. If the wetland is to be effective in filtering nitrogen from the water big enough wetland needs to be built, so that the nutrient rich sediments are not swilled out of the wetland. If the main aim of the wetland is biodiversity a wetland with a large variation should be built. A varying water level and grazing gives a varied wetland where a lot of different species will thrive.

The constructions involved with a wetland can include closing ditches, building dams and digging. Often earth banks are needed to limit the wetland area. The banks should blend naturally into the landscape. To regulate the water level, wells with removable wooden planks in them can be used.

WILL THERE BE MORE MOSQUITOES?

No probably not, mosquitoes that bite live in small collections of water such as puddles and rainwater barrels, not in larger wetlands. In larger wetlands there are predator insects and fish that eat mosquitoes. You can find harmless non-biting midges in larger wetlands though.



MANAGEMENT OF WETLANDS

For wetlands to function as nutrient traps and for insects, frogs, birds and other species to thrive the wetlands need to be managed. The vegetation needs to be cut or grazed and overgrowth kept away. When the grass is cut or grazed nutrients that have been taken up in the wetland vegetation is removed from the wetland and can be recycled into the production system as fodder or as a substrate for bio-energy.



Wetlands host a lot of interesting insects. It is an exciting place for a family outing.

TO CONSIDER

Do check with your local authorities what rules and regulations there are before you start work on constructing a wetland.

READ MORE:

www.wetlands.se

Feuerbach, P., Strand, J. 2010. Water and biodiversity.

Biebighauser, T. 2011. Wetland restoration and construction. A technical guide.

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