

REED REDUCTION AND GOOSE GRAZING IN SOUTH SWEDISH LAKES

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The lakes in Scania (the southernmost province of Sweden) are generally shallow, eutrophic and surrounded by reed belts. During the 1980's increasing damage was observed at the lakeward edge of many reed belts. Aerial photographs document that reed area in some lakes has declined substantially during the last ten years.

This reduction has occurred simultaneously with a large increase in the population of the Greylag Goose (*Anser anser*) in Sweden. It is believed that the decline is caused mainly by grazing Greylag Geese, staying in the Scanian lakes during breeding (April-May), molting (June) and autumnal migration (July-September). In August-September large areas of *Phragmites australis* are affected by geese grazing. However, the largest impact is thought to occur during the early breeding season, when nutritious shoots (submerged) of *Phragmites* are important food items.

Food preference among common reed-forming macrophytes follows the sequence *Phragmites-Scirpus-Typha*. In some areas with heavy grazing pressure *Phragmites* has disappeared from the edge, facing open water and now occurs inside protecting stands of *Typha*.

The reduction of the reeds is in some lakes seen as an environmental deterioration, because the heterogeneity of the littoral zone is reduced. Particularly, observed reduction in some of the south Swedish waterfowl lakes is detrimental to several waterfowl species. The Greylag Geese are themselves destroying habitats they utilize for foraging and breeding.

Grazing effect on macrophytes have also been observed in lakes where the Canada Goose (*Branta canadensis*) has increased during recent years. The species was introduced into Sweden in the early 1930's and the population is now approximately 50.000 individuals. The

Canada Geese breed in more oligotrophic lakes and feed partly on macrophytes during the breeding and molting season. Food preference seems to follow the sequence *Equisetum* - *Scirpus* - *Phragmites*.