

Ervik, F., S. S. Renner, and K. A. Johanson. 1995. Breeding system and pollination of *Nuphar luteum* (L.) Smith (Nymphaeaceae) in Norway. *Flora* 190: 109-113.

**ABSTRACT**—Insects visiting *Nuphar luteum* in southern Norway were caught and identified and their role as pollinators was evaluated by observations of their behaviour. *Nuphar luteum* is mainly pollinated by *Apis mellifera* and *Bombus* spp. Moreover syrphid flies are efficient pollinators. The chrysomelid beetle *Donacia crassipes*, although sometimes present, plays but a minor role as pollinator. By bagging and emasculating flowers the breeding system was shown to be one of mixed mating. *Nuphar luteum* is protogynous and primarily cross-pollinated, but because male and female stages overlap during the second day of flowering, and because it is self-compatible, self-fertilization is possible. Agamospermy was not found. In Norway, *Nuphar luteum* appears to have shifted from a typical beetle pollination syndrome to a non-specific pollination syndrome. Insect-induced autogamy as well as the wide range of pollinators may enhance the species' ability to colonize new lakes.

**Key words:** *Nuphar luteum*, Nymphaeaceae, Norway, pollination, breeding system.