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EFFECT OF FOOD AVAILABILITY ON WATERFOWL ABUNDANCE IN CONDITIONS OF SOUTH BOHEMIAN FISHPONDS (CZECH REPUBLIC)

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A remarkable decrease in breeding population size was recorded in many waterfowl groups (esp. in ducks) in most of the fishpond regions in the Czech Republic. This phenomenon has been the main stimuls for the initiation of many investigations of waterfowl ecology. The assessment of factors affecting habitat preference of particular waterfowl species seems to be very important for understanding the population dynamics of respective species.

We studied habitat preferences of waterfowl species on 74 fishponds in Třeboň Basin (South Bohemia, Czech Republic) in 1992-1994. Our study was aimed to:

- comparison og habitat preference of adult and young waterfowl
- investigation of changes in habitat preference of adult waterfowl during breeding season
- studying of sexual variation in habitat preference
- circadial investigation of feeding behaviour of particular duck species

On each fishponds, the census of waterfowl as well as limnological investigation (water transparency, zooplankton composition) were carried out. In total, we recorded more than 3000 adult and more than 1000 broods of about 20 waterfowl species. Habitat of particular fishponds studied was characterised by water surface area, littoral stands area, shore development, water depth, surrounding habitats and pond isolation index. Majority of the fishponds were under a high pressure of enormous fish stock

More detailed analysis of habitat preference was carried out for the most common waterfowl species (*Podiceps cristatus, Anas platyrhynchos, Anas strepera, Aythya ferina, Aythya fuligula, Fulica atra*). Preliminary results show that:

- Waterfowl broods prefer ponds with higher transparency (i.e. with larger food supply and availability)
- Adult ducks prefer ponds with higher transparency only at the beginning of the breeding period
- Only Gadwall (*Anas strepera*) occurs more frequently on ponds with lower water transparency. This species is the only duck species whose abundance is slowly increasing.