

## ABSTRACT

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This study examines the impact of catastrophic flood on the species composition and size of fish prey in the diet of kingfisher (*Alcedo atthis*) nesting in Prague's Botič stream in 2013. Floods in June 2013 affected mainly Bohemia and partly Moravia. The streams across the Vltava river basin, in part of the Elbe river basin and marginally in the Thaya river got swollen. The effect of the flood on the Botič stream was further amplified by draining of water from the dam Hostivař. Hundred and forty year water caused considerable damage to property and it is likely that it also changed the character and size composition of biota, especially fish. This change should be reflected naturally in the diet of kingfisher, which nests and hunts here.

The species composition and size of fish prey in the diet of kingfisher before and after the catastrophic flood was investigated from the mass of regurgitated pellets collected from nest tunnels and chambers. In the nesting sediment, 689 head diagnostic bones (pharyngeal bones - *ossa pharyngea* and preopercular bones - *praeoperculare*) were found before the flood on Botič stream in June 2013. These bones belonged to 10 fish species and 3 families (Cyprinidae, Percidae and Balitoridae). The average length of fish was 6,5 cm, average weight 2,6 g, and the index of food diversity was 1,58. After the flood, 511 diagnostic bones of 7 species of fish and 2 families (Cyprinidae, Percidae) were found. The average length of fish was 7,5 cm, weight 4,1 g, and the index of food diversity was 1,36. The diet of kingfisher after the flood comprised fewer individuals and fewer fish species than before the flood. Moreover, the fish were significantly larger with higher weight.

As a part of the study, nesting possibilities and nesting tunnels of common kingfisher were monitored during the nesting season from late March to September 2015. 11 nesting burrows and 29 nesting possibilities were found on the Botič stream during the 3 periods of the nesting season (March-April, May - June, July - August).

**KEYWORDS:** kingfisher (*Alcedo atthis*), diagnostic bones, diet of kingfisher, composition of the diet, regurgitate pellets, nesting sediment, monitoring, nesting possibilities, occupied tunnels, flood