

Waterbird-monitoring in the reconstructed habitats of Lake Fertő, northwest Hungary

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1. Introduction

Lake Fertő is divided by Hungarian-Austrian national boundary. In the past, the lake and the swamp of the Hanság comprised a single water system. After all the drainage works, reed has extended into the lake basin. At present, 88% of the Hungarian lake water surface is covered by reed, resulting in a reedbelt 2 to 6 km wide separating open water from the lakeshore. As a consequence, the original habitats of the lakeshore-zone have changed. Habitat diversity has decreased, and it has become more difficult to measure and monitor migratory birds.

One of the most important aims of the Fertő-Hanság National Park management now is to restore those bird habitats lost during the last 150 years. Work on this aim began in 1989, and an early result has been the return of some breeding species that had become extinct locally decades ago. Furthermore, the existence of new 200 ha artificially-inundated areas has played a significant role in the reappearance of migratory waterbirds.

Restoration work so far

There are four territories within the project, each territory being flooded by saline lake-water in a yearly pattern whose initi-

ation and duration depend on the respective conservation management activities they require, activities such as grazing, mowing and reed-cutting that are important to regulate the long-term reed distribution.

There are highly important breeding bird species in the project area, such as Red-crested Pochard *Netta rufina*, Ferruginous Duck *Aythya nyroca*, Avocet *Recurvirostra avosetta*, Black-winged Stilt *Himantopus himantopus*, Kentish Plover *Charadrius alexandrinus* and Mediterranean Gull *Larus melanocephalus*. Restoration work has to take the needs of these breeding species into account. Within the project framework, we are examining the how the area functions with respect to the migration process of the most typical waterbirds. To a great extent, the restoration activity provides good opportunity to follow and model the function the lake as a whole plays in the migration process, because the massive extent of the reed coverage of the present lake basin prevents any examination of the present ecosystem by any other methods. In our monitoring project, we trace the population changes of 62 bird species by weekly counts and estimates. It is not possible to monitor rarer species by our methods, nor can we make reliable estimates of the vast flocks of wild geese.

2. Interim results

The number of species covered by the project reaches a maximum value by late April and early May (39-42 species; Figs 1a-1c). The total number of birds concerned in the project is at its highest from mid-October until mid-November (8-13 000 birds; Figs 2a-2c). It should be

noted that the numbers of wild geese are equivalent in the same autumn period.

The commonest species in the area are Common Teal *Anas crecca*, Northern Shoveler *A. clypeata*, Mallard *A. platyrhynchos*, Northern Lapwing *Vanellus vanellus* and Ruff *Philomachus pugnax*. Endangered (both in Hungary and Europe) and rare species such as Eurasian Spoonbill *Platalea leucorodia*, White-tailed Eagle *Haliaeetus albicilla* and

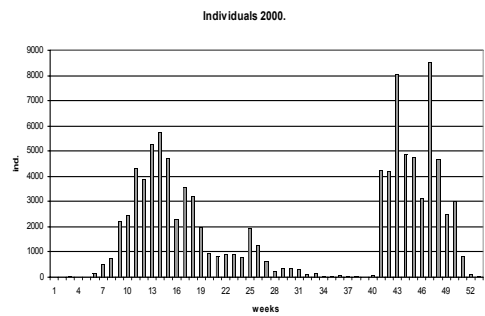
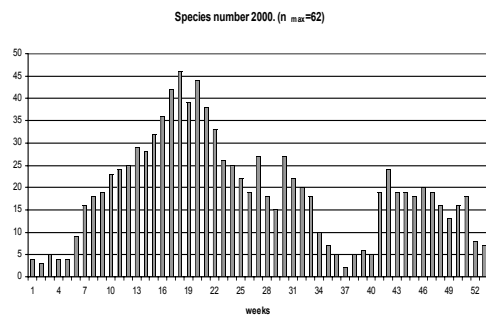
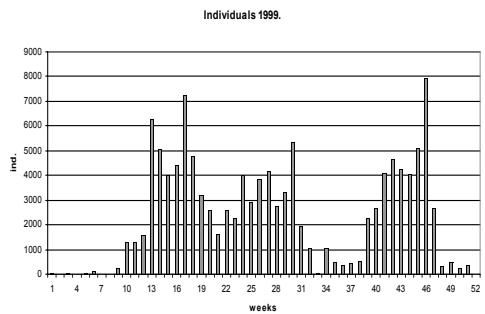
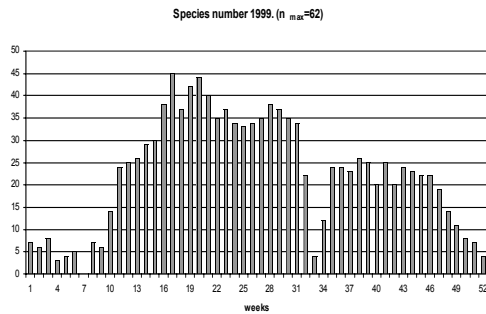
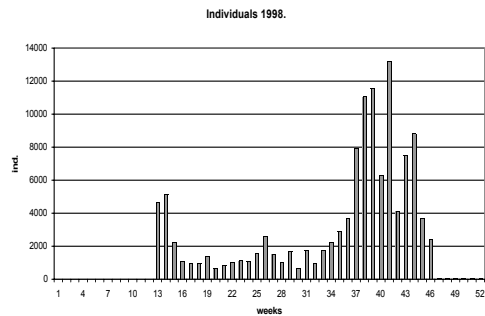
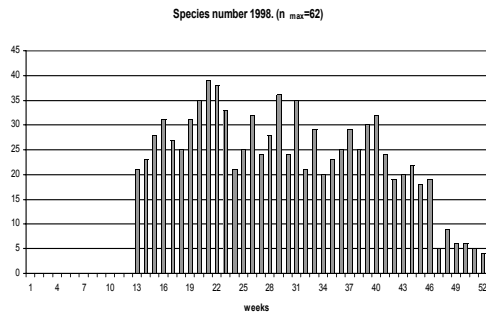


Fig. 1a-1c. The number of species counted weekly in the study area in 1998, 1999 and 2000.

Fig. 2a-2c. The number of individual birds counted weekly in the study area in 1998, 1999 and 2000.

Ferruginous Duck are included in the monitoring project. However, our observations include some critically endangered species, such as Lesser White-fronted Goose *Anser erythropus* and Red-breasted Goose.

The first item of Hanság wetland-reconstruction area (c450 ha in size) was completed in 2001, thus increasing the importance of the region to migrant wetland birds. The same monitoring methods will be extended over more of the Hanság in the future, and the project will be enlarged by a joint Austro-Hungarian project to count the wild geese.

References

- Faragó, S. 1995. Geese in Hungary 1986-1991. Numbers, migration and hunting bags. Vol 36. – IWRB Publication, Slimbridge. pp. 97.
- Kárpáti, L. 1991. Erste Ergebnisse der Lebensraumrekonstruktion bei Mekszikópuszta. – BFB-Bericht 77: 85-91.
- Pellinger, A. 1993. A Fertő vadludairól. (About the geese of Lake Fertő.) – Szélkiáltó 7: 10-14. (In Hungarian)
- Pellinger, A. (Ed.). 2000. A Fertő védett és fokozottan védett természetsterű élőhelyein végzett fenntartó kezelések és rekonstrukciók értékelését megalapozó monitoring. Kutatási jelentés. (Monitoring as the basis of evaluating the reconstruction and maintenance activities on the protected and strictly protected semi-natural areas of Lake Fertő. Unpublished Research report.) (In Hungarian).

