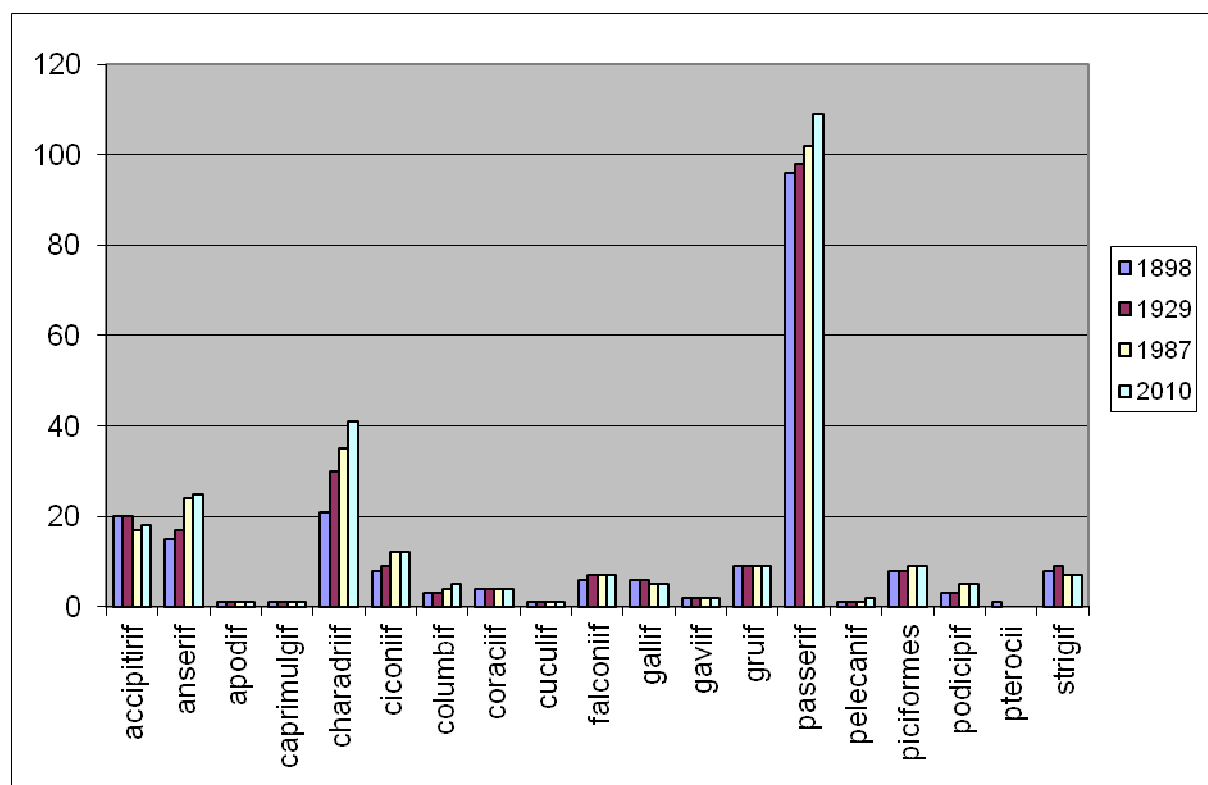


## Changes to the avifauna of Vas county from the 19th century to present

József Gyurác<sup>1</sup> – Imre Balogh<sup>2</sup>

1. Institute of Biology, Faculty of Natural Sciences, University of West Hungary
2. Institute of Technology, Informatics and Economics, Faculty of Natural Sciences, University of West Hungary

In this study the previous three published checklist (Chernel 1898, Fromm 1929, Barbácsy 1987) and the current list of the birds (Gyurác et al. 2010) of Vas county were compared. The main aspects of the analysis were: 1. To register the bird ordo and fauna type composition of the breeding and non-breeding avifauna. 2. To reveal the ordo and fauna type diversity of the breeding and non-breeding avifauna. 3. To predict the change of the avifauna in the 21st century by the ARIMA analysis. The species richness and diversity of the fauna types of the breeding avifauna did not change significantly from the 19th century to the 21st century. The diversity of the fauna types of the migrating-wintering avifauna was significantly lower in the end of 19th and early 20th century than it was in the end of 20th and early 21st century. The species richness of the ordo *Charadriiformes* of the non-breeding avifauna increased significantly in the last 150 years due to established of the water reservoirs and other small lakes during the 20th and 21st centuries in Vas county. For a change in avifauna referred to the global warming was not observed. According to time-series modelling the species richness of ordo *Charadriiformes* grow up to 2050 in Vas county.



Species richness of bird ordo of the four avifauna in Vas county



The first record of Red-flanked Bluetail in Hungary was on 12th October 2010 at Tömörd Bird Ringing Station, Vas county (*Foto: J. Gyurácz*)