



THE JOURNAL HIRUNDO IN THE ESTONIAN ORNITHOLOGY, 1988–2007

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Abstract. The Estonian Ornithological Society (EOS) has published the ornithological journal *Hirundo* since 1988. Altogether 89 authors have written 175 ornithological papers and 61 short notes. Papers published in *Hirundo* have been cited 537 times with 81% of citations in Estonian books and journals. Sixteen papers (9%), which have been cited at least 10 times, make 54% of all the citations. Whereaby three summaries of population estimates of birds of Estonia have been cited a mean of 36 times per article. The most important value of *Hirundo* is to maintain and develop ornithological papers in the Estonian language. We also have subjectively distinguished the five most innovative or comprehensive scientific fields covered by the journal: the quantitative assessments of the Estonian bird fauna, research on birds of prey and owls, long-term studies of landbirds, development and local adjustment of ornithological methodology, and results of the projects of the EOS.

Introduction

A manual for hobby ornithologists “How to observe birds” has been published by profesor Erik Kumari in 1963. The final words of this book said: “The summary of a book ... is the result of a long-term hard work of the observer. Neither every publication nor all the results are worth

it.” Twenty-five years later in the introductory part of the first *Hirundo* Heinrich Veromann (1988) incited hobby ornithologists to write these kinds of summaries that would pave way for an Estonian ornithological periodical. By now, latter periodical has been published for 20 years.

The main objective of the current paper is to describe the role of *Hirundo* in the Estonian ornithology and to determine the contribution and the future of this journal. Yet, these estimations are subjective to a certain extent, however, characteristic to the folk culture of a small nation – *Hirundo* is a reflection of its creators and members. The current paper is based on surveys collected by the authors during eight years of editing *Hirundo* and includes 60% of all ornithological papers published during 20 years and co-authorship during 16 years.

Ornithology in *Hirundo*

The number and format of research work

Apart of all the different papers issued in *Hirundo* such as public calls concerning different projects, chronicles, forewords of different issues, summaries introducing the history of the local ornithology that have been published by the Ornithological Society formerly known as the Ornithological Section, also ornithological research papers have been published. Latter scientific papers may be divided into: **notes** of one page length (an independent chapter since 1998) and full-text **articles**. In these 20 years altogether 175 ornithological research papers and 61 notes have been published in *Hirundo*. During the past five years a mean of seven articles and five notes have been published.

The number of articles published during many years has been rather stable, however, since the 1990ies the volume as well as the layout has improved due to the progress of the technical capabilities. Thereafter the page capacity and the amount of literature cited have become more stable. However, there has been some downturn in inprocessing results, as the number of illustrative graphics has considerably declined (Fig. 1) despite of the progress of the technical capabilities. Even at the end of the 1990ies preparation for printouts consisted of copying and cutting out pictures and glueing them on a model.

Citations

The credibility of the articles may be estimated by the number of times they have been cited in different publications. The articles published in *Hirundo* have been cited altogether 537 times of which 273 (51%) in *Hirundo* itself (including *Supplementum*), 34 in *Linnurada*, 26 in *Eesti Loodus*, 25 in *Loodusvaatlused* and 78 in other Estonian publications whereas 101 (19%) citations have also appeared in several foreign or international publications. These citations give us a hint of *Hirundo* being "discovered" five years after it first was issued. Citations (also in foreign countries) did not begin to appear before ten years had passed and have become less frequent during the past four years (Fig. 2).

Sixteen papers have been cited at least 10 times that is 9% of all the articles and 54% of all the citations. The article with the most citations in *Hirundo* is Population Estimates of Birds of Estonia in 1998 (Lõhmus *et al.* 1998), which has been cited altogether 45 times. The other two articles with the highest number of citations are similar summaries (Eltis *et al.* 2003 – 35 citations; Lilleleht & Leibak 1993 – 27 citations). The most cited article in the field of ecology (Lõhmus 2001a about feeding biotopes of raptors) has 24 citations, in monitoring (Lõhmus 1999 monitoring of raptors) 22 and the most cited raport of the Estonian Rarities Committee (Lilleleht 1999) has 16 citations. These three topics above belong to the most cited ones (a mean of 35.7 citations per article) and are followed by 8 raports of the Estonian Rarities Committee (7.9) but also 8 articles about woodpeckers (4.8) and 39 raptors (4.7 citations per article). Numerous summaries (27) of the bird fauna of different regions and biotopes have been cited at a mean of 1.5 times.

The issues mentioned above also belong to the most cited ones (27, 49 and 40 times, accordingly; Fig. 3) due to population estimates whereas special issues on bird monitoring (33 citations), raptors (49) and woodpeckers (34) have also been cited as many times - a mean of 38.6!

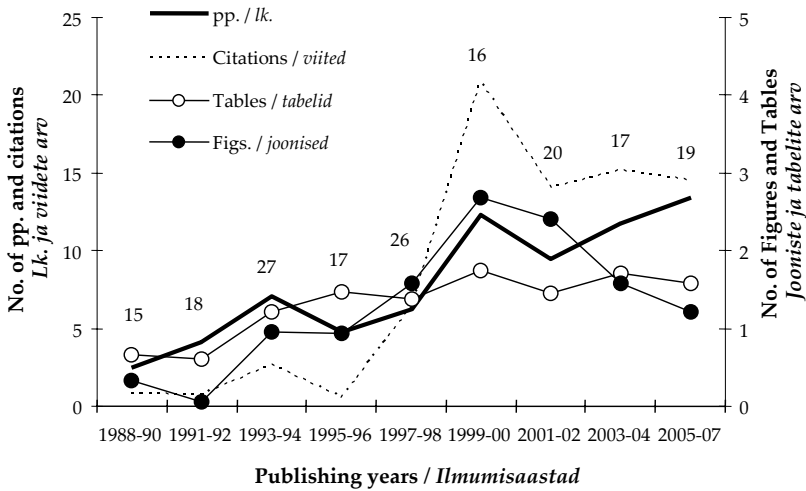


Figure 1. The mean technical characteristics of ornithological papers in *Hirundo*, 1988–2007. Labels indicate the number of papers.

Joonis 1. *Hirundo* ornitoloogiliste artiklite keskmised tehnilised näitajad 1988–2007. Numbritega artiklite arv.

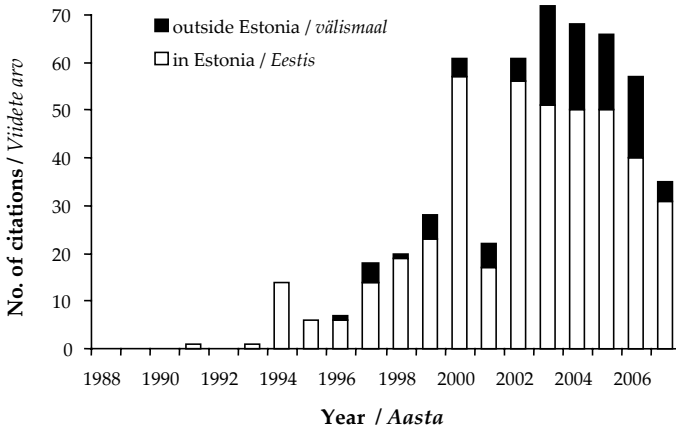


Figure 2. Annual numbers of citations (537 in total) to *Hirundo* papers.

Joonis 2. *Hirundo* artiklitele viitamise ajaline dünaamika (537 viidet).

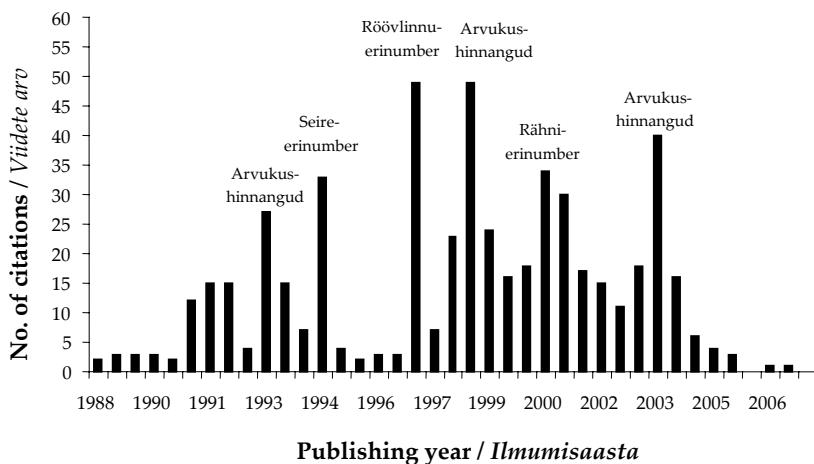


Figure 3. Numbers of citations (537 in total) to *Hirundo* issues. Most cited are the three issues with national population estimates (arvukushinnangud), and special issues on bird monitoring (seire-erinumber), raptors (röövlinnu-erinumber) and woodpeckers (rähni-erinumber).

Joonis 3. *Hirundo* artiklitele viitamine üksiknumbrite kaupa (537 viidet).

Citations reflect the information exchange between ornithologists; however, papers that have become of permanent value as well as papers that are innovative and exceptional in a way might not find immediate response. According to the concisement of the content there are five groups of papers distinguished in *Hirundo*, yet, in future other groups might appear which at present do not comprise any substantial meaning.

1. The first **population estimates** of the Estonian bird fauna, which are complemented by reports made by the Estonian Rarities Committee about credible findings of extremely rare species. These papers are the main source for describing the state the Estonian bird fauna. The significance of these papers also finds support by numerous citations described afore.

2. The formation of an Estonian **raptor research** group that gratefully came about through the mediation of *Hirundo*. The first contribution was made by Eedi Lelov with summaries of the regional population estimates and breeding performance of raptors (Lelov 1990, 1991) that later expanded to projects of national significance (Lõhmus 1994, 1999; special issue in 1997) which were based on original data and expanded upon new aspects such as feeding biotopes (Lõhmus 2001a), wintering (Nellis *et al.* 2002), location of nests (Lõhmus 2003b), cause of death (Lõhmus 2004b) and satellite-telemetrical studies on migration (Sellis *et al.* 2007). In conclusion, one fifth of all the articles published in *Hirundo* expand upon raptors and more than one third of all the citations belong to these papers.

3. The ecology of waterfowls in Estonia has been thoroughly studied by professional ornithologists and studies mostly carried out within protected areas. Therefore **a long-term study on inland bird fauna** has been the *par excellence* of hobby ornithologists. The very first article published in *Hirundo* (Leivits *et al.* 1988) paved way to observations carried out in certain areas throughout the entire century by the two most important hobby ornithologists Endel Edula and Eet Tuule in co-operation with several professional ornithologists. Latter observations are insuperable in terms of extent. The 11 publications of E. Edula that comprise data of tens of thousands of bird nests belong to the most considerable summaries about the breeding biology and expand upon the population dynamics of passerines (Edula 1998), trushes (Edula 1996, 1997), Linnets (Edula 2000) and species breeding in nest-boxes (Edula 1999). The 8 most notable publications of E. Tuule are one of a kind that comprise standard bird census (decades of all-year and weekly observations!) and provide *e.g.* overviews of breeding areas within different biotoipes expanding upon inland *Charadriiformes* (Tuule *et al.* 2002, 2003, 2005) and Magpie (Tuule & Elts 2003).

4. **Research methods** in ornithology have been altered and adjusted to circumstances prevailing in Estonia. In the course of this adjustment methods have also undergone verification. Therefore, amendments have been made to transect counts of inland birds during the breeding season (Ellermaa 2003a, b; Lõhmus 2003a; Väisänen & Ellermaa 2003;

Väli & Laurits 2006) and wintering period (Elts 2001), as well as to population estimations of woodpeckers (Lõhmus *et al.* 2000), woodland birds (Ellermaa 2005; Lõhmus & Rosenvald 2005), meadow birds (Erit 2004) and Corn Crakes (Elts & Marja 2007) but also to estimations of population density (Lõhmus 2000, 2001b) and breeding performance (Lõhmus 1997; Lõhmus *et al.* 1997) of raptors, representability of nesting cards (Lõhmus 2002) and derivation trends in abundance from long-term phenological observations (Ader & Keskpaik 1994). Quite a few of these approaches have already been applied since such kind of papers get a mean of 3, 4 citations each.

5. Summaries of **major projects of the EOS**, a collaboration of many bird watchers. Most of the summaries have been written by project leaders with the exception of monitorings of raptors and nesting card projects of various species (altogether in 5 different articles), which have been written by observers themselves, and several ornithologists, accordingly. During twenty years these major projects have been discussed in 35 different articles when considering only three summaries of the monitoring of raptors in Estonia (latest Lõhmus 2004a). A better analyses is provided by 8 articles expanding on phenological observations (upon various species, latest expanding on invasion birds, *e.g.* Eenpuu & Elts 2004), 7 on bird of the year project as well as on census of wintering birds (latest Elts 2001), 5 on project of nesting cards and 3 on point counts (latest Kuresoo & Ader 2000). Thus, latest summaries have been published several years ago while concerning the other entire projects only one article has been published during the past five years (about the ongoing birdatlas project, Elts & Kuus 2005). In fact, the people engaged in *Hirundo* (since the foreword of the very first issue; Veromann 1988) as well as other observers have been hoping for more attention drawn to the major projects which actually was the original intention of this journal.

***Hirundo* as a part of the ornithological activity in Estonia**

Authors and editing

Papers of altogether 89 authors have been published in *Hirundo* whereas 17 have written only notes. The age and the level of education among authors varies extremely (from school children to retired scientists) as one might expect in ornithological observations. However, the proportion of female authors is low, as only seven women have made their contribution to the journal that is 6.5% of all the papers published in *Hirundo*. Altogether six people have been the authors of at least ten long articles: A. Lõhmus of 31 articles, J. Elts 27, L. Rootsmäe 16, E. Edula 11, A. Leito and Ü. Väli each of 10 articles. Due to differences in the thoroughness of the articles also the number of pages as well as citations had to be taken into account when dividing it among several authors of the same paper. As it appears, one third of *Hirundo* is consisting of the papers written by only three top authors (Lõhmus 17%, V. Lilleleht 9%, J. Elts 8%) who have almost half of all the citations (A. Lõhmus 29%, V. Lilleleht 11%, E. Leibak 8%).

The publication of *Hirundo* has been guaranteed by several editors: E. Leibak (1988–92, economic editor during the same period being K. Rattiste), J. Elts (1992–1997), A. Lõhmus (1997–2002), Ü. Väli (2002–2005), L. Saks (2005–2007) ja M. Mägi (since 2007). Also an editorial board of 6–8 people has played a great part in the publication of this periodical where altogether 20 people have belonged in the past: A. Kuresoo, E. Leibak, A. Leito, A. Leivits, E. Lelov, V. Lilleleht, L. Luigujõe, A. Lõhmus, E. Mägi, R. Mänd, Renno Nellis, V. Paakspuu, H. Pehlak, K. Peterson, I. Pilt, K. Rattiste, J. Remm, L. Saks, H. Veromann, Ü. Väli. The main function of the editorial board has been reviewing manuscripts before the publication of articles. Most of the manuscripts received have also been published. The exact account of manuscripts derives from the years 1997–2002 and according to that 22% (25%) of 87 manuscripts have been rejected, 64 have been published as articles and the fate of one manuscript remained undetermined. The proportion of rejected manuscripts probably has decreased in time.

Chronicle and exchange of information

Beyond boubt, one of the main functions of the EOS is to form an association of people interested in birds, bird study and bird protection, therefore, the actions taken by the organisation (including management and supervisory board) as well as the intermediation of bird watching, educational events (observations, the annual meeting of members, outings, bird club activity), bird conferences and bird news has been documented in *Hirundo*. The chronicle is probably more attractive to people who find the scientific part too abstruse and hopefully find encouragement to read the articles at a later time. These days the chronicle is only a small part of the periodical, however, has extended up to 2 pages per issue during the first ten years (0-12% of total) and even up to 3-12 pages during the second decade (5-19%). During the past five years the proportion of the chronicles has been stable, 6-9 pages (10-15%). Additionally, the culture of ornithology in Estonia has been discussed in almost every foreword of *Hirundo*. Special summaries have been made of ornithophenological observations (Rootsmäe 1996), ornithological literature (Rootsmäe 1992) and Doctoral theses during the period of independence (Mänd 2005, Anon. 2007). Also the current paper belongs to these summaries, however, extensive studies on the Estonian ornithology needs yet to be carried out.

Special issues

In time some manuscripts started to exceed the volume of an average article. Similar to several other journals these papers were published in independent additional irregular issues called *Hirundo Supplementum*. The first two issues introduced the bird fauna of certain regions (Alam-Pedja Nature Reserve, Saaremaa) and were published already in the mid 1990ies. Since the year 2000 the supplementary issues have expanded upon protected species and are based either on action plans (6 species in each issue) or on recommendations concerning protection (11 species in one issue). The link between the two different periods is one supplementary issue published in 2001 that is extending

upon analytical studies on bird protection considering region as well as species. The *Supplementum* has become a unique series of monographs considering regions and species and is a continuation of *Pääsuke*, a serial book.

Historical and future perspectives

The most significant quality of *Hirundo* consists in promoting bird science in **Estonian language** that helps to evolve relevant terminology, way of thinking and communication. Hence, this periodical is an important continuation of the former *Ornithological collection* and supplementary to several publications extending upon bird fauna (*Loodusevaatlusi*, *Estonian Nature*, *Abiks loodusevaatlejale* and others). The characteristics of *Hirundo* are regularity, a rather demanding scientific style, and a large number of authors and many-sided handling of the Estonian bird fauna. *Hirundo* can even be considered as an independent community since the relative importance of self-citations is high (51%).

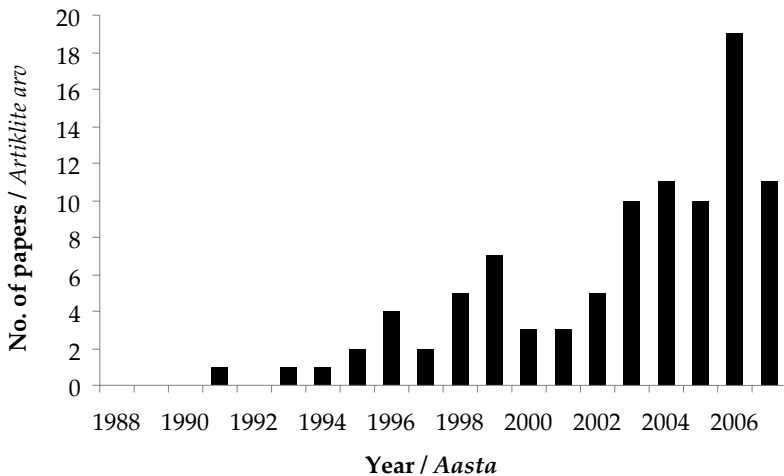


Figure 4. Number of papers published by Estonian ornithologists and referred in the ISI Web of Science database in 1988-2007.

Joonis 4. Eesti linnuteadlaste poolt kirjutatud artiklite hulk, mida refereerib rahvusvaheline andmebaas ISI Web of Science, käsitletaval perioodil.

However, such a delimited and closed niche is rather unstable due to the small size of Estonia. The orientation of *Hirundo* during the past years has had an effect on its development and regression has occurred in some parameters mentioned above. Birdwatching is probably as popular as it has been before, however, the improvement of web based media has brought about a possibility to transmit observation data in a faster way which is easier when compared to long-term collection of data, critical analyses and writing articles. However, the lack of latter operations leads to deterioration of integrity, reliability and application. Also practical observations of bird fauna are being carried out, however, many reports remain in a form of a manuscript and therefore inaccessible for a larger group of bird watchers. Processing and publishing these reports would have an interest in science as well as nature conservation since reviewing improves quality whereas hanging up reports on web does not.

The academic bird science is clearly being differentiating from the people engaged in *Hirundo*: professional ornithologists are assessed by papers published in international publications. In 1992 professor Raivo Mänd (1992a) had to admit that regardless of their potential the estonians have not been involved in international bird science, however, the situation has been improving (Fig. 4; see also Mänd 2005). Unfortunately the contribution of professional ornithologists to *Hirundo* has been decreasing. Yet, the Bachelor and Master's thesis written under the supervision of the professionals have been published in every issue during the past few years.

Publishing observation reports has been an integral part of science, including bird science and has simultaneously come about with changes in the society (Mänd 1992b). There is no doubt about the importance of *Hirundo*, however, there is a need to remind oneself once in a while and also determine new directions. Nevertheless, during the past years only "compulsory reporting" – that is population estimates, summaries of The Rarities Committee and summary notes of only a few EOS projects - has been published in *Hirundo*, which is suggesting a state of weariness. *Hirundo* can hardly be accused of being highly scientific and therefore excluding hobby ornithologists. Moreover, many projects based on

long-term observation are suffering from the lack of volunteers. Serious bird watchers probably will continue their vocation, however, due to the growing contribution of a few people the future of the periodical is becoming unstable. In order to maintain and improve *Hirundo* it is necessary to re-establish the function of hobby ornithology, in other words, the maintainance and improvement of bird watching in Estonia that is producing results that are worth publishing.

Ajakiri „Hirundo” Eesti linnuteaduses 1988–2007

Artikkel kirjeldab ajakirja *Hirundo* arengut ja panust Eesti linnuteadusesse 20 ilmumisaasta jooksul ning tulevikuväljavaateid. Kokku ilmus 89 autorilt 175 linnuteaduslikku artiklit ja 61 lühiteadet. Artikleid viidati 537 korral, neist 81% Eesti väljaannetes. Vähemalt 10 korda viidatud 16 artiklile (9% artiklitest) oli 54% kõigist viidetest, kusjuures kolm Eesti lindude arvukushinnangute kokkuvõtet kogusid keskmiselt 36 viidet artikli kohta. *Hirundo* püsiväärtus on eestikeelse linnuteaduse hoidmine ja arendamine, mille seas on sisuliselt mõjusaimad olnud viis valdkonda: Eesti linnustiku arvukushinnangud; röövlinnu-uuringud; maismaalindude pikaajalised uuringud; omamaised kontrollitud meetodikad; EOÜ suurprojektide tulemused.

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