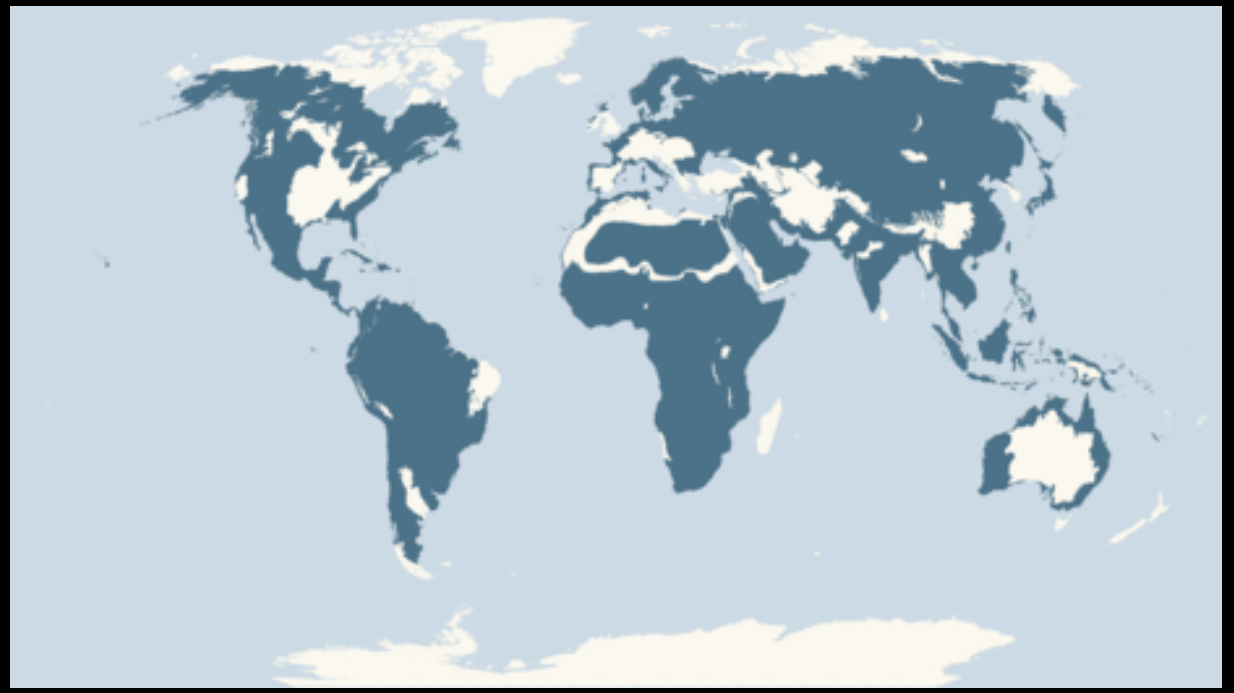

Photo by Riho Männik

Osprey in Estonia

Poland, Szczecin 2018

Urmas Sellis

Eagle Club



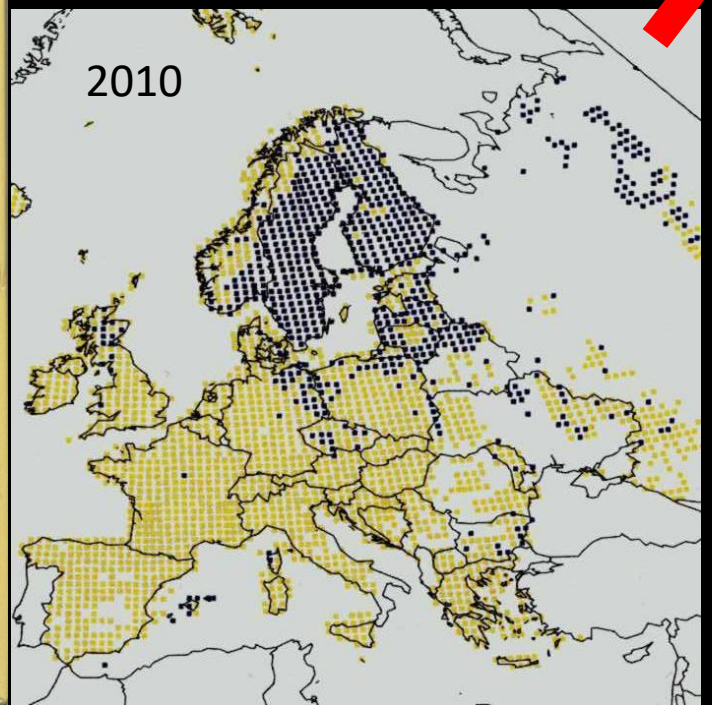
ospreytaleteller.com

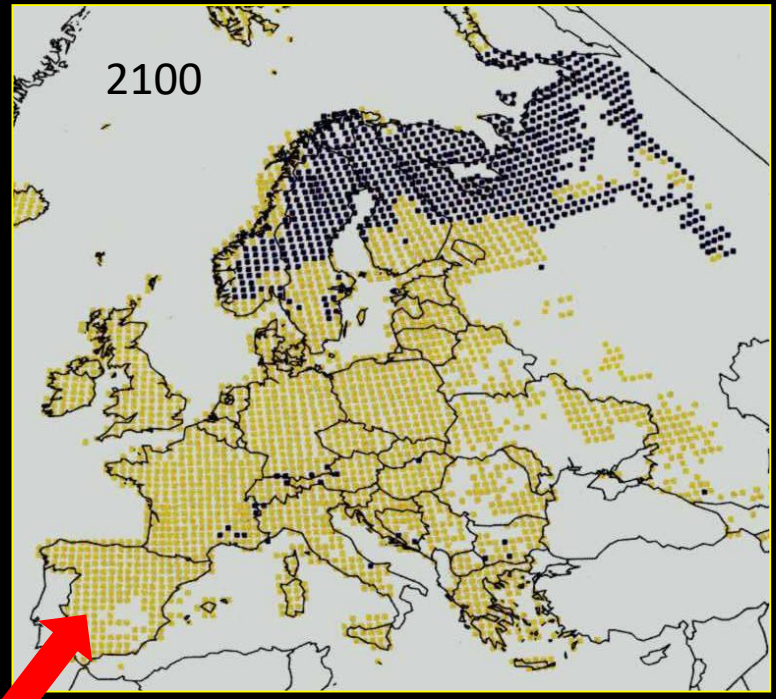
BirdLife International (2018) Species factsheet: *Pandion haliaetus*.

A Climatic Atlas
of European Breeding Birds

Brian Huntley
Rhys E. Green
Yvonne C. Collingham
Stephen G. Willis

Durham University
RSPB
Lynx





Ospreys background

- Same population with Latvia, Finland and probably western Russia
- Looking from far, Estonia is only a dot on Osprey range
- So some cooperation is wise to perform (Eagles Cross Borders)
- Similar monitoring and other activities about Osprey
- Frequent communication about Osprey (ring recoveries)
- Similar ringing scheme since 2007
- Using of web cameras
- Tracking of Ospreys
- Joint research about demography of Ospreys

Eagles Cross Borders

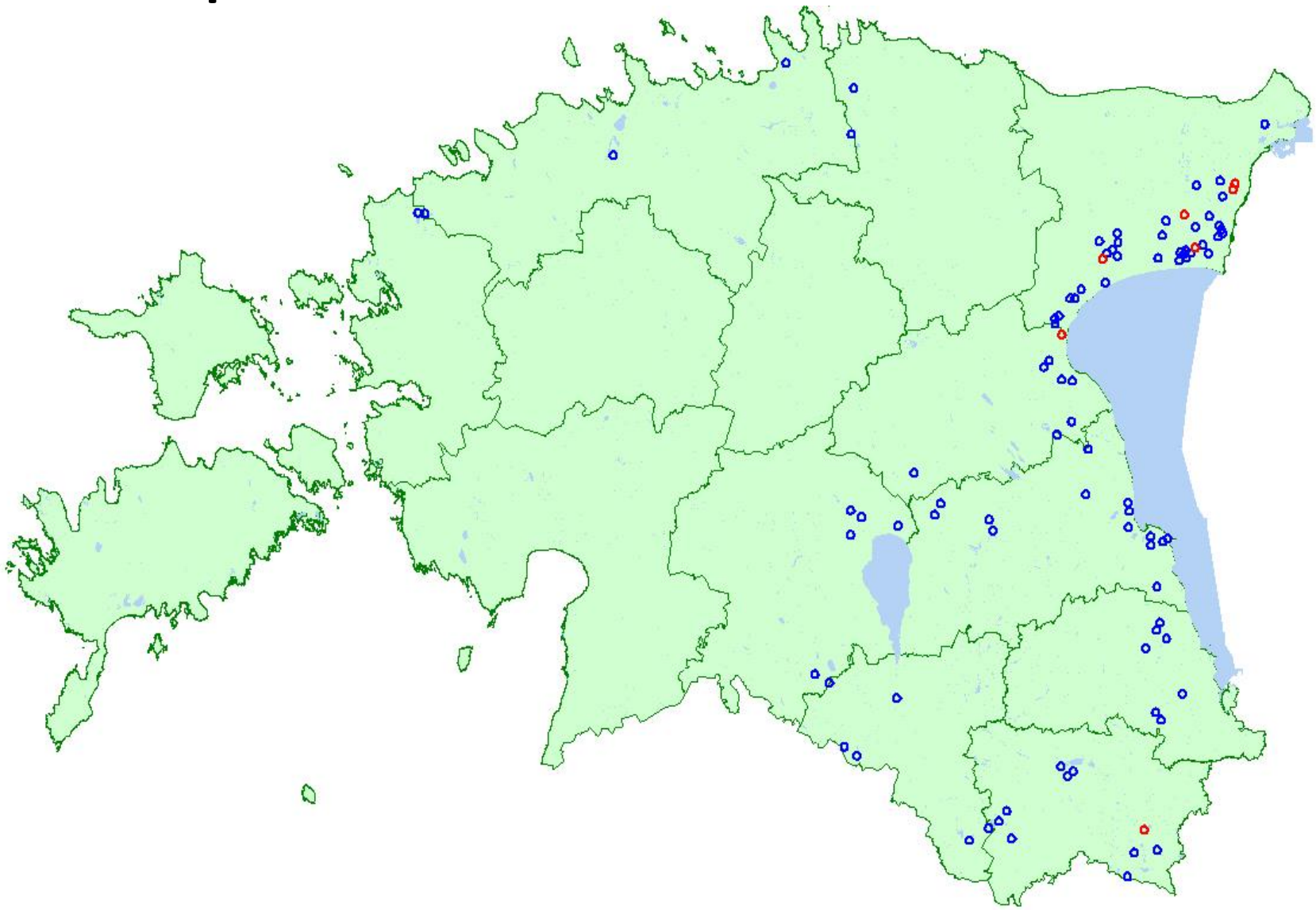
To harmonize conservation, awareness and monitoring of two species of European conservation concern (Osprey and WtE)

- Sharing of experience and knowledge, in particular:
  - travelling photo exhibition;
  - webcam using
  - tracking (migration map)
  - photographing of adults near nests
  - conservation action plans
  - on place seminars for stakeholders
- Bulding up wider view of Osprey and people connected

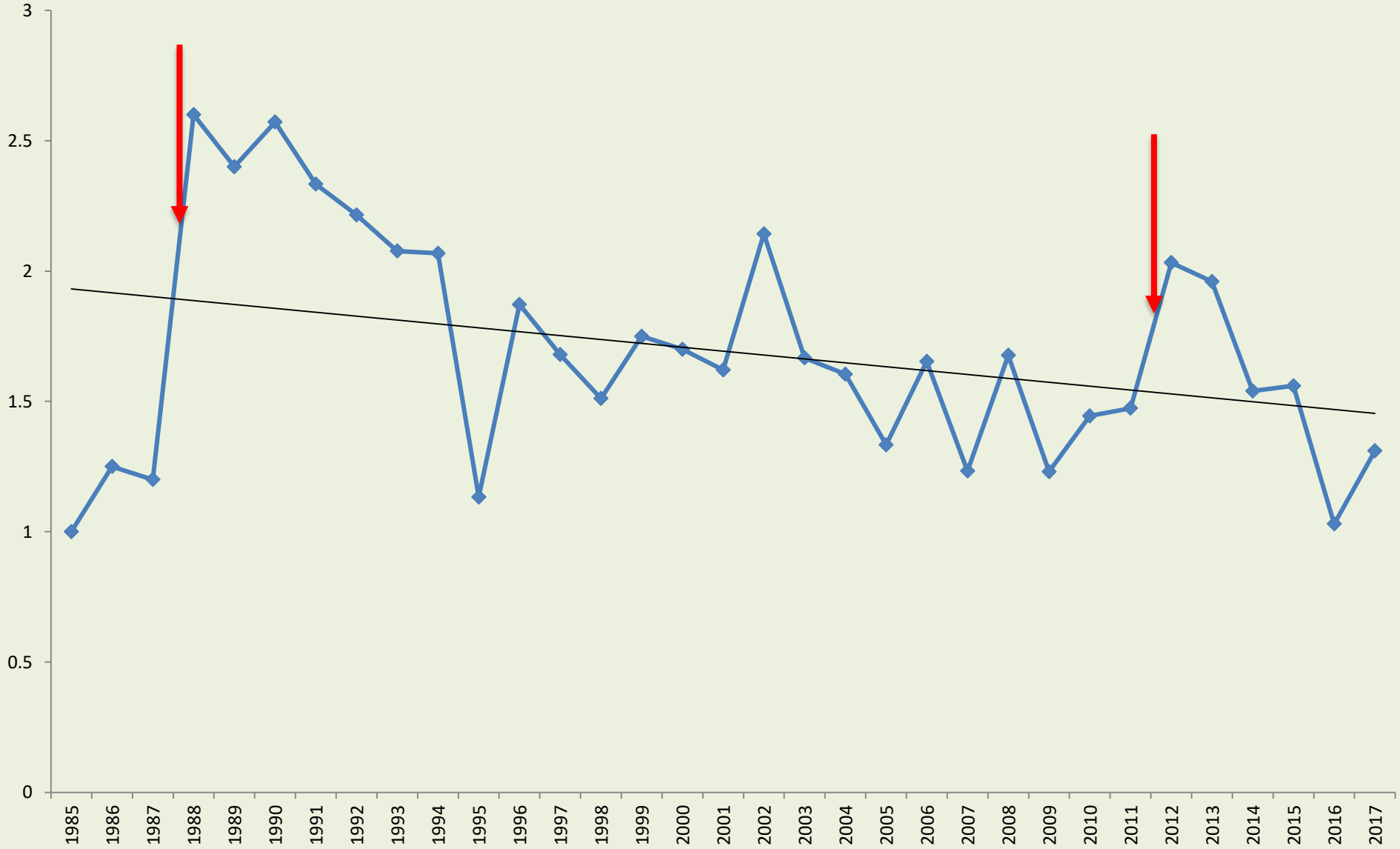
EAGLES
CROSS
BORDERS

Population

- EST 90-100 pairs
- 5-10 in 1985
- ++ trend
- in eastern part
- slow in dispersioon



Productivity of Osprey in Estonia



Conservation

- As an Eagle, belongs to 1st category of protected species
- Conservation Action Plan (3rd edition)
- State register – all permissions for economical activities follow
- 200m automatic cycle around new nest
- Later, site protection zone with natural borders (if needed)
- Compensation to fish farmers of Osprey and White-tailed Eagles damages
-

Compensation

- Since 2009 acccording the applications of fish farmers
- 25 km of Osprey nest
- Successful nest up to 959€, unsuccessful max 30%
- 9-11 classified applications per year
- Ospreys as customers with state quaranty
- Fake fish farms?

The impact of the White-tailed Eagle *Haliaeetus albicilla* and the Osprey *Pandion haliaetus* on Estonian Common Carp *Cyprinus carpio* production: How large is the economic loss?

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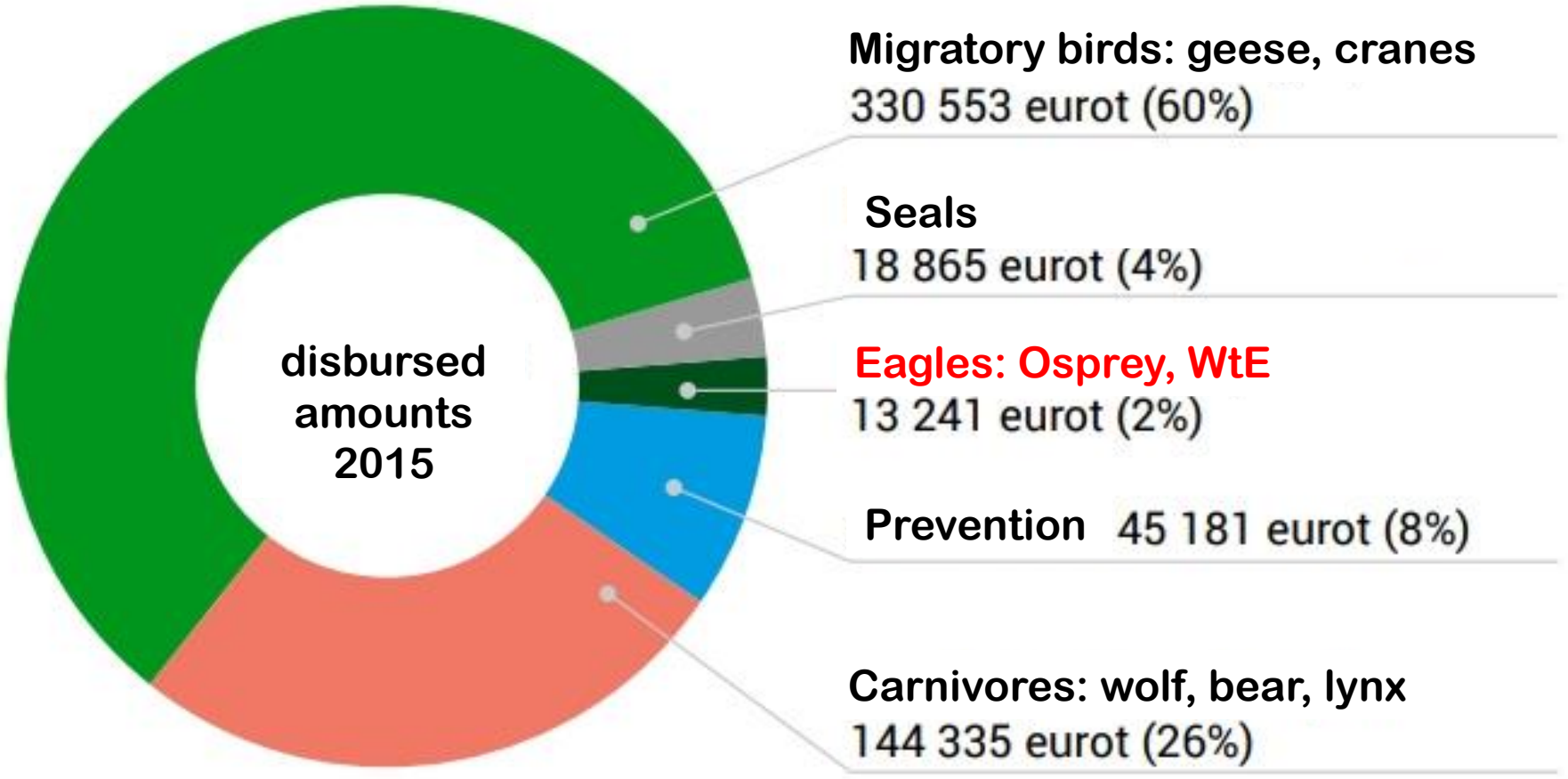
Received 29 March 2006, in revised form 16 May 2006

Abstract. Protected bird species have been suspected to be a cause of a significant economic loss at Estonian fish farms, but its extent has remained unexplored. We counted the number of White-tailed Eagles and Ospreys, and the quantity of fish they take, and analysed the economic loss in five carp farms in 2001–2004. Each of Estonian four larger carp farms was used by a pair of breeding White-tailed Eagles, and by up to three immature birds, whereas Ospreys were recorded at all five studied farms. The average daily number of foraging White-tailed Eagles per farm was 1.3–3.3; the number of birds was constant during the breeding period but differed between years. The average number of Ospreys (0.5–2.8) fluctuated both within and between years. White-tailed Eagles foraged upon 300–1050 g third-year fish, and caught on average 0.4 fish per day per eagle. Ospreys took third-year fish at the beginning of the breeding season but second-year fish later; they always selected fish weighing 200–400 g, and caught 0.3–3.7 fish per day. The total amount of fish taken by the two species differed significantly between years and regions. The extent of loss caused to a fish farm depended on the methodology used for estimation. Calculations based on potential final weight of fish were on average 44% higher than those based on current weight, and constituted up to 4% of the total price of fish sold, and 2% of the total weight of fish reared by the company.

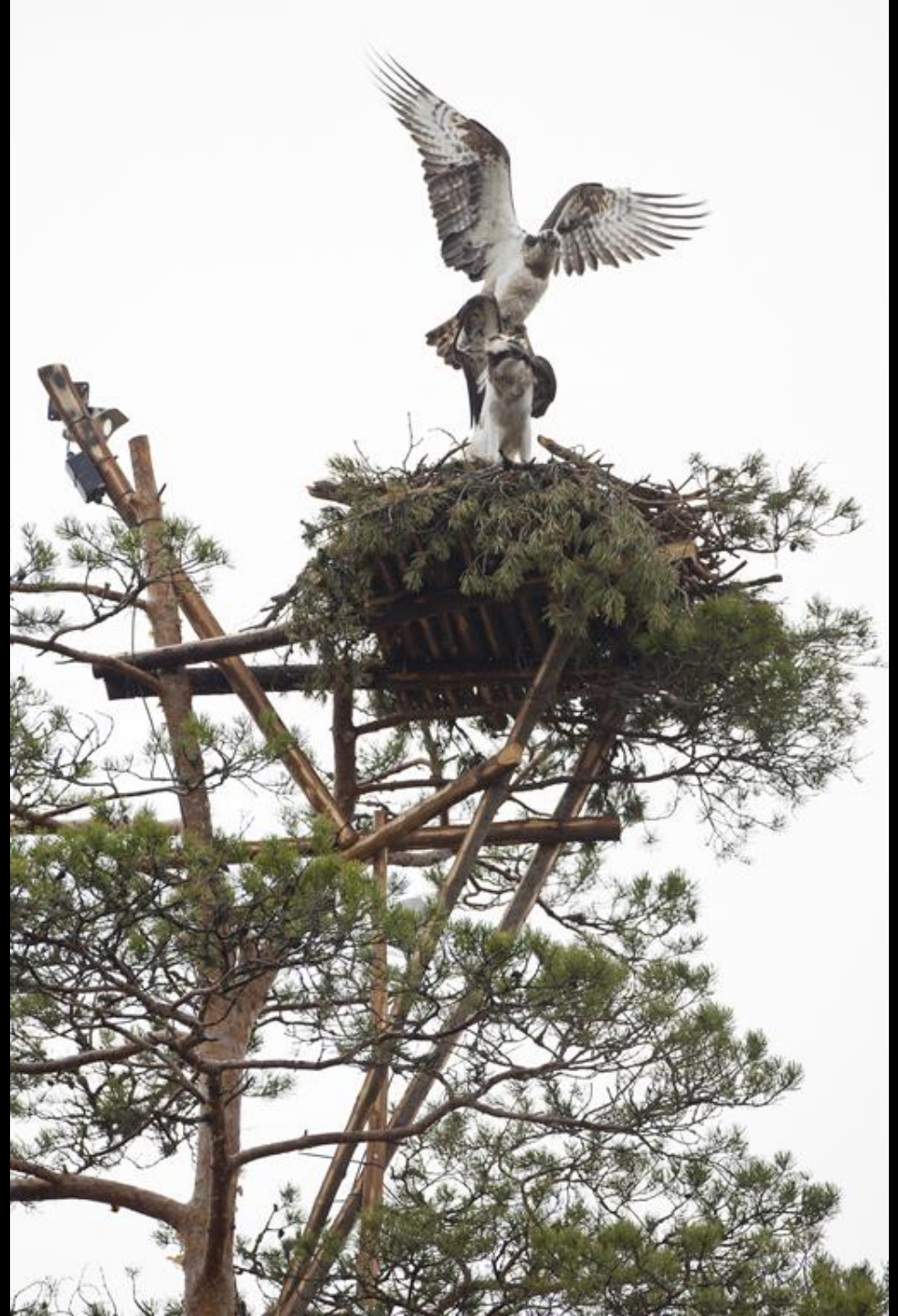
Key words: freshwater aquaculture, fish pond, foraging ecology, piscivore, birds of prey, economic loss, damage estimation.

Wildlife compensations incl. eagles



Web cameras

- Started on Ospreys within joint cross border project (ESTLAT)
- Estonia 2012 - … two nests per year (7 seasons)
- Latvia 2012 - … one nest per year (four different nests)
- Events documented in forums



Artificial nests

- Since 1985 ca 40 nests built, not last years anymore
- Finnish experience - Pertti Saurola calls „national shame“
- There seem to be enough natural trees (knowing eastern bogs)
- That may invite Ospreys to breed in electric poles
- Population is increasing rapidly anyway
- Neighboring areas support well our population

Ringing scheme since 2007

Demographic study (EE-LV)

- About 6-10 years used long lens to photograph adults during nest controls in both countries (incl. individuals from neighboring countries)
- Plus few breeding individuals trapped to read metal rings (added color ring)
- Plus some rings read with help of trail cameras, web cameras, cooperation with nature photographs, etc
- Data about for 250 individuals on photo database, study is ongoing…

Tracking


Life

Tracking

- For conservation, education purposes
- Eight Ospreys in Estonia since 2006
- Public migration map
- Forum of the migration map

Ostrich 2015: 1–6
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Migration patterns of the Osprey *Pandion haliaetus* on the Eastern European–East African flyway

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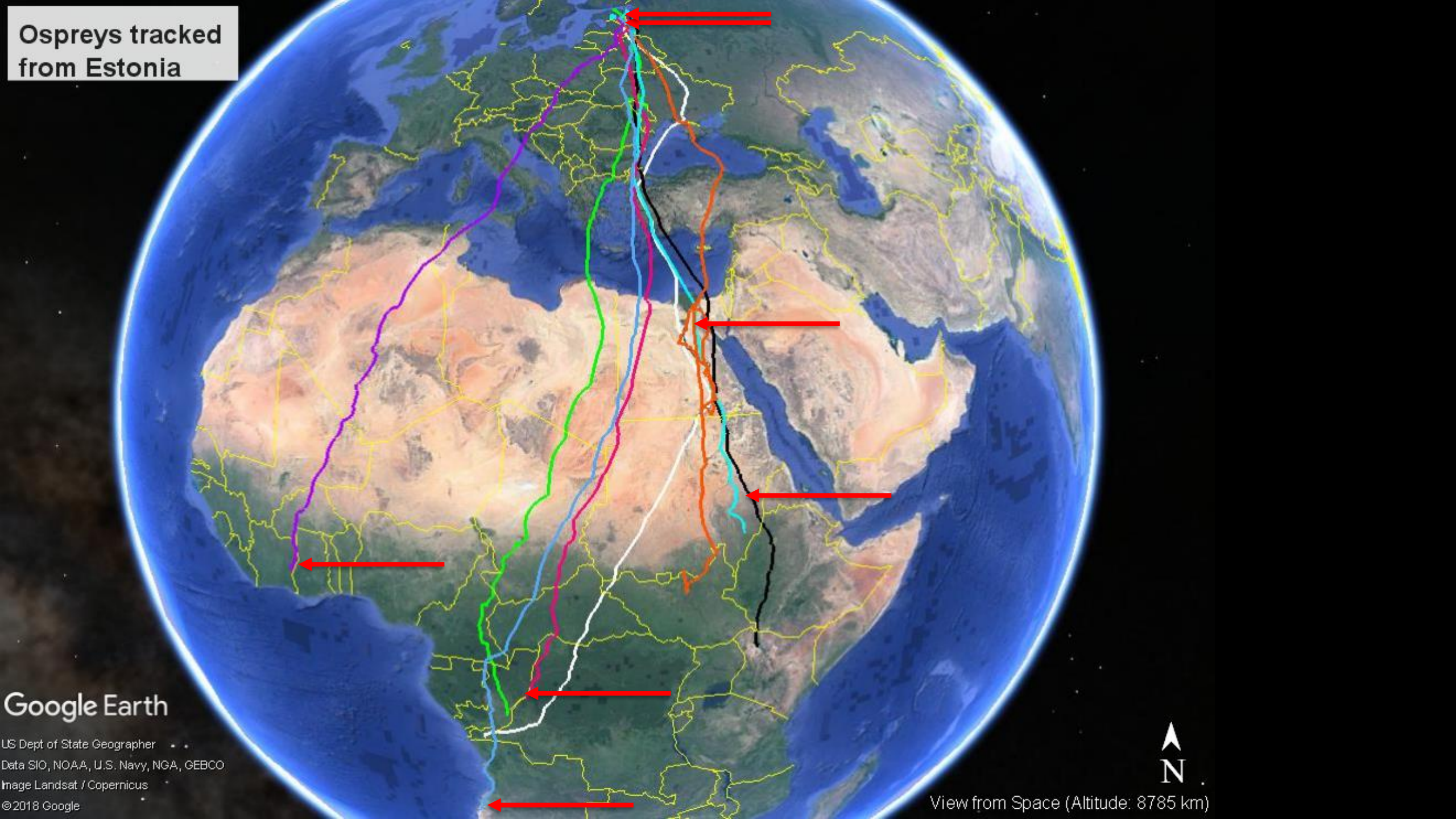
We analysed migration strategies of the Osprey *Pandion haliaetus* on the poorly studied Eastern European–East African flyway. Four adult birds were equipped with GPS-based satellite-transmitters or data-loggers in their breeding sites in Estonia (north-eastern Europe) and tracked to their wintering grounds in Africa and back, during up to six migration cycles. Departure times, migration routes, as well as wintering and stopover sites varied remarkably between individuals but not much between years. Stopovers (2–30 days) were made mostly in Europe and less in the Middle East (Turkey) and north-eastern Africa (Egypt). The Ospreys did not avoid flying long distances over the sea, and the sea was crossed four times during the night. The current study adds to current knowledge on Osprey migration and should help to concentrate actions on protecting important flyways and stopover locations.

Keywords: migration, Osprey, raptor, stopover, telemetry


Ospreys tracked from Estonia
Google Earth
US Dept of State Geographer
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat / Copernicus
©2018 Google
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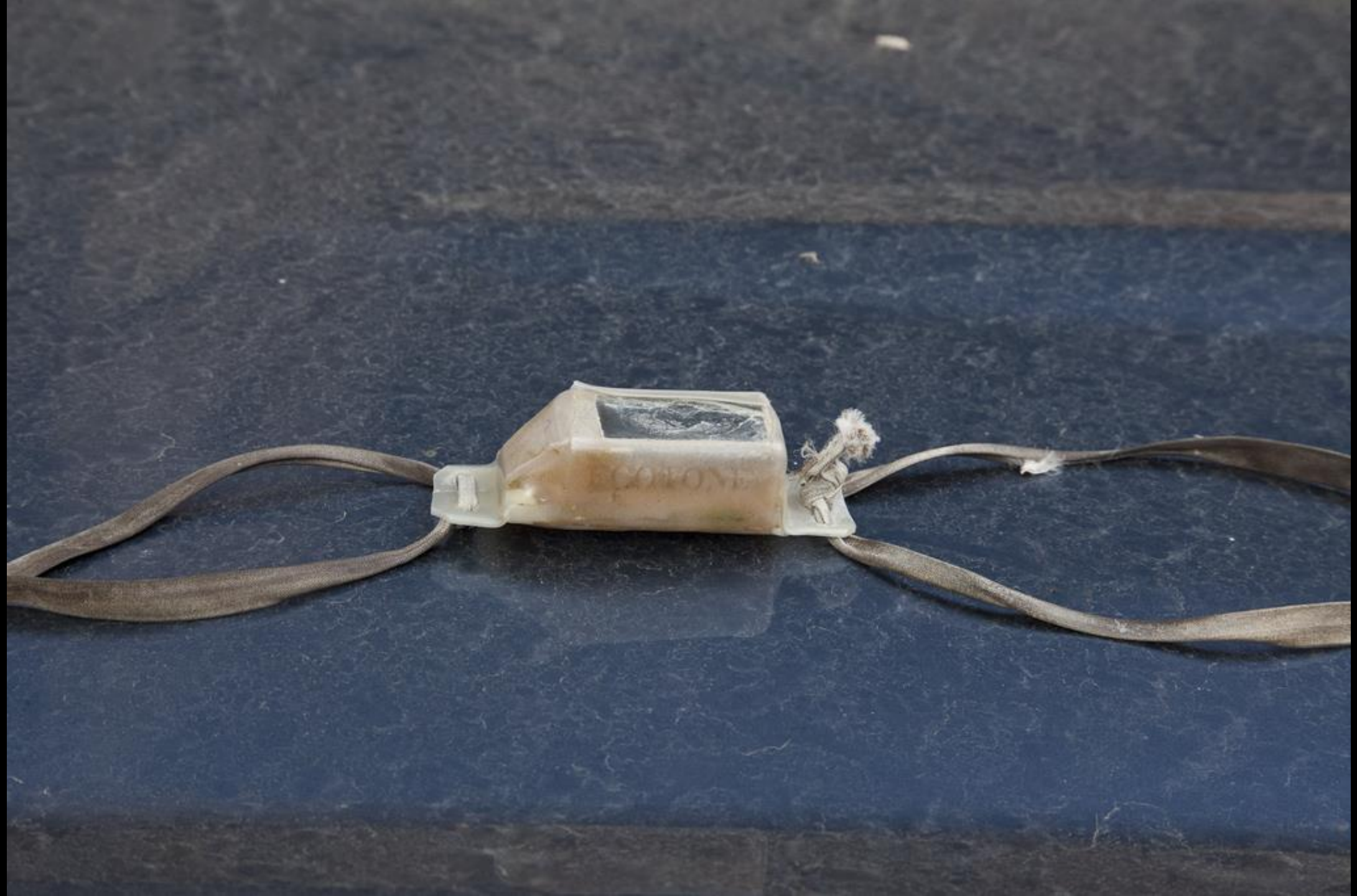
View from Space (Altitude: 8785 km)

Think before start of tracking!

- **Are you sure about safety of the population?**
- **Did you obtain practical experiences?**
- **Can you imagine your bird carrying this tag?**
- **There will be losses within your birds…**
- **Mainly you can’t say the reason of perish…**
- **Tags will not make survival rate higher!**
- **Did you think about removal of tags?**



... could tags be additional threat?

- Sceptics declare – we need to stop every tagging, because the birds die of those transmitters...

➢ ...they are right, until we do not publish different results?

BIRD STUDY, 2017
http://dx.doi.org/10.1080/00063657.2016.1271395

SHORT REPORT

Apparent survival rates of adult Lesser Spotted Eagle *Clanga pomarina* estimated by GPS-tracking, colour rings and wing-tags

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ABSTRACT

Capsule: In the migratory Lesser Spotted Eagle *Clanga pomarina*, colour rings and Global Positioning System transmitters indicated annual survival rates similar to other large raptors, but the rate suggested by wing-tags was significantly lower due to the higher rate of tag loss.

ARTICLE HISTORY
Received 12 August 2016
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Adult survival is an important life history trait which has a substantial influence on population dynamics, especially in species which typically have a long life-span, a low reproductive rate and delayed maturity (Ferrer & Calderón 1990, Real & Mañosa 1997, Whitfield *et al.* 2004). Reliable identification of individuals is key to effective survival analysis (Newton *et al.* 2016). Ringing, including colour ringing, has been the most widely used marking method in birds but several other methods, such as wing-tagging (Kochert *et al.* 1983, Green *et al.* 2004, Varland *et al.* 2007), have provided nearly equal alternatives (Calvo & Furness 1992, Sutherland *et al.* 2004). Additionally, raptor species breeds in the Western Palearctic and winters in southern Africa. Philopatric Lesser Spotted Eagles return every year to the same breeding territories and often breed repeatedly in the same nests (Danko *et al.* 1996, Dravecký *et al.* 2013), which facilitates the monitoring of their survival between years. Moreover, although these eagles breed secretively in forests, they forage in open agricultural land, where observers can easily identify and record their tags.

Fifty-one adult (exact age at marking not known) breeding Lesser Spotted Eagles were marked at nest sites in four study areas southeast of the Baltic Sea in 2003–16 (Murmastiene, Latvia, 56°37′N, 26°28′E,

… could tags be additional threat?

- Sceptics declare – we need to stop every tagging, because the birds die of those transmitters…

➢ …they are right, until we do not publish different results

- Impact of tagging depends on technics, experience and knowledge used
- Some negative impact will remain (spy, parasites, termoregulation, turbulences) – some we can diminish

➢ …though transmitter could also save the life!

What tag to use?

- If possible, GPS solar device (long life span)
- Battery type if there is not enough light
- GSM vs Argos transmission (+ others)
- Energy is the limit and transmission of data

There is no ideal device!

Problems

- **Low survival rate among juveniles**
- **Endangered species**
- **Shy behavior, feathers – power?**
- **Interferences in transmission**
- **Insufficient sample, long time studies**
- **Unexpected problems...**

How to know about possible problems with tags

- **Observations, add. radio tag**
- **...**

How to know about possible problems with tags

- **Observations, add. radio signal**
- **Look at sceptics publications**
- **Decide according your data**
- **Install a trail cam or webcam**
- **...**


16:50


7:27

So we maybe can have facts and argue with sceptics…


Kotkad ja
must-toonekurg

Thank you for attention!

Enjoy what you do!


... let’s dreaming!
Photo by Riho Männik