Arrangement of Spotted Eagles and Black Stork conservation in Estonia

LIFE04NAT/EE/000072 (EAGLELIFE)

Of Black storks and spotted eagles in Estonia

Since the situation for most Estonian eagles is good, then unfortunately the greater spotted eagle and black stork can be expected to disappear in the face of a variety of dangers. The lesser spotted eagle population is estimated to be between 500-600 pair, with greater spotted eagles as few as 20 pair. The black stork population is believed to be a maximum of 80 pair.

The spotted eagle- and black stork populations are endangered mostly by the destruction of nesting grounds in the course of forest cutting. Roughly half of spotted eagle- and black stork nesting sites are not known precisely and therefore remain unprotected by the state. Disturbances during nesting season and the deteriorating quality of feeding grounds is a negative influence.

The protection of eagles and black storks has three main thrusts: habitat protection, monitoring, and awareness-raising among the human population. The forest economy is considered one of today's most essential influencing factors of the eagle population. The most effective protection measure has been the creation of a protection zone around the the nesting site, where during nesting season both economic activity and human access are forbidden. In the near term, increased attention must be paid to the spotted eagles and black storks complete habitat, including the protection and care of feeding grounds.

EAGLELIFE

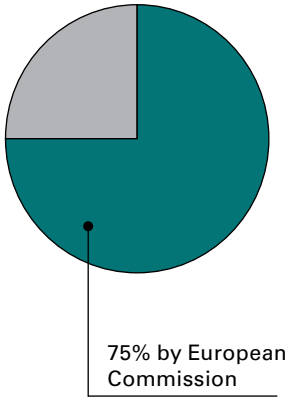
Arrangement of Spotted Eagles and Black Stork conservation in Estonia

Goal:

- To ensure population stability and the favorable status of habitat for spotted eagles and black storks in Estonia
- To execute approved action plans for project target species and update these plans for the next five years
- To raise society's awareness of the project species and of eagles in general
- To develop international cooperation in the areas of protection and research
- To improve the status of the Natura 2000 network
- To assist the Ministry of Environment in executing projects for the protection of target species

Project implementation time 2004-2009

Budget of project
846 618 €



SUPPORTED:

European Commission
ec.europa.eu/environment/life

APPLICANT:

Estonian Ornithological Society
www.eoy.ee

PARTNERS:

Eagle Club
www.kotkas.ee

Ministry of Environment
www.envir.ee

Environmental Board
www.keskkonnaamet.ee

Estonian Private Forest Union
www.eramets.ee

CO-FINANCIER:

Environmental Investment Centre
www.kik.ee

Restoration of grasslands

The largest EAGLELIFE activity was the restoration of the bush- and tassock-infested grasslands. The goal was the restoration of 2,800 hectares of grasslands in Soomaa National Park, which meant the clearing of brush which had accumulated over the past decades from the grasslands, so that in the future hay could be cut in those fields. Regularly managed grasslands for spotted eagles (and to some extent the black stork) are a primary source of food—bushes and tall grasses prevent the spotted eagle from catching small rodents, his primary prey. Nesting success and the count of nesting pairs of spotted eagles has begun to fall in Soomaa, and with grassland restoration we wish to arrest the decline.

Restoration of the less bushy grasslands was not complicated, and local residents were able to manage it (in areas which did not hold water). In recent years, hay has been harvested from the land and the hay quality has proved quite good. In addition, the hayfields were quite pleasing to the eye, and appeared as we had imagined them in their ideal form.

Cattle have been used for restoration in some areas (though later we were forced to clear the thicker brush). The cattle are quite at home in the fields. The keeping of sheep in Soomaa has been more complicated, due to the abundance of wolves and bear.

During our work, it became clear that a part of the fields slated for restoration were no longer bush fields, but were covered in forest. Forest removal was not our goal. Cultivating grasslands from forest would take years, and after a thorough inventory, we identified 900 hectares of this type land. Because of this, EAGLELIFE project activities fell under four additional Natura 2000 network areas—Käntu-Kastja, Matsalu, Alam-Pedja ja Keeri-Karijärve.

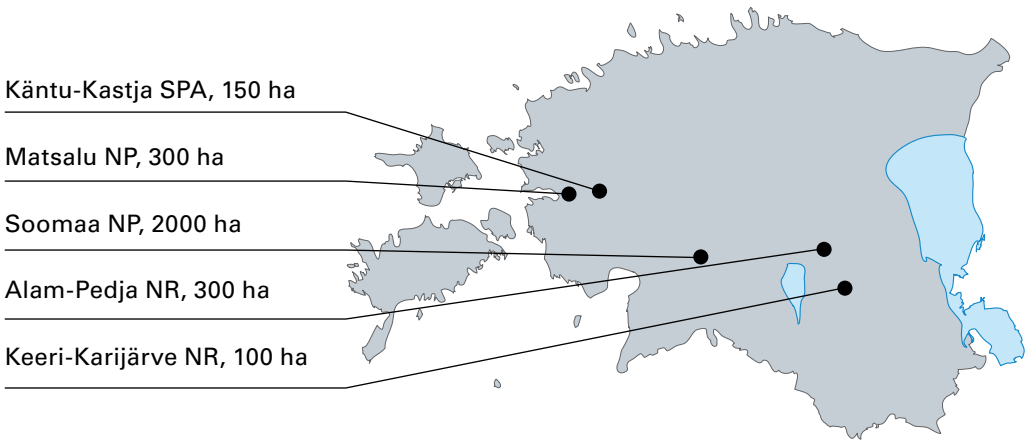
The more difficult areas (those not worked for the longest) to restore demanded significantly more expense in terms of machine parts and fuel than we had planned. We were required to use specialty equipment and subcontractors with the required experience.

During the project, official state restoration rates rose significantly and we were required to find additional funds to achieve our objec-

tives. At that time, the State Nature Convservation Center solved those problems—2007's dry summer and fall enabled a lot of work to be done at that time. In 2008, there was additional money available for restoration, though the climate (repeated flooding) didn't enable access to the grasslands. Only the relatively high grasslands of Käntu-Kastja were restored during this time. Restoration in Matsalu and Alam-Pedja (together 600 hectares) were unfinished during the timeframe of the project, though we will continue and the plan is to accomplish the goal by the end of 2009, or at the first possibility.

The monitoring of spotted eagles has shown that the spotted eagle population decline in Soomaa has recovered and is now on the rise, though finding correlations will be the subject of work for the coming decades. As an unexpected positive, we can report one additional pair of black storks in the Soomaa boundaries and one breeding pair improving in their nesting success. Is this directly connected to the restoration of grasslands? At this time we can't make that claim, but in other regions of Estonia an increase has not been noticed. In all cases, black storks are often spotted gathering food after floodwater subsides, and pairs nesting farther away are also observed in the restored areas. The spotted eagle's territory, which was located in an unsuitable environment for restoration, is over the past five years have remained empty...

During EAGLELIFE restored floodplains in Estonia



Purchase of land

Within the framework of the EAGLELIFE project, it was planned to buy black stork- or spotted eagle nesting grounds which are on private property with at least 65 hectares. The objective was to reduce the land owner's risk with defined conditions—not all land owners were in agreement with the defined conditions. One landowner's parcel went to the state (by exercising the Ministry of Environment's right to purchase through the right of first refusal) and four parcels to the Ornithological Society (since purchase by the state of these particular parcels would have been rather complicated). All land purchased under the project (parcels totalling 76.8 hectares) is on the island of Saaremaa, in black stork micro-reserves and Natura 2000 areas. From now on, the property is zoned as a protected area in the land cadastre.

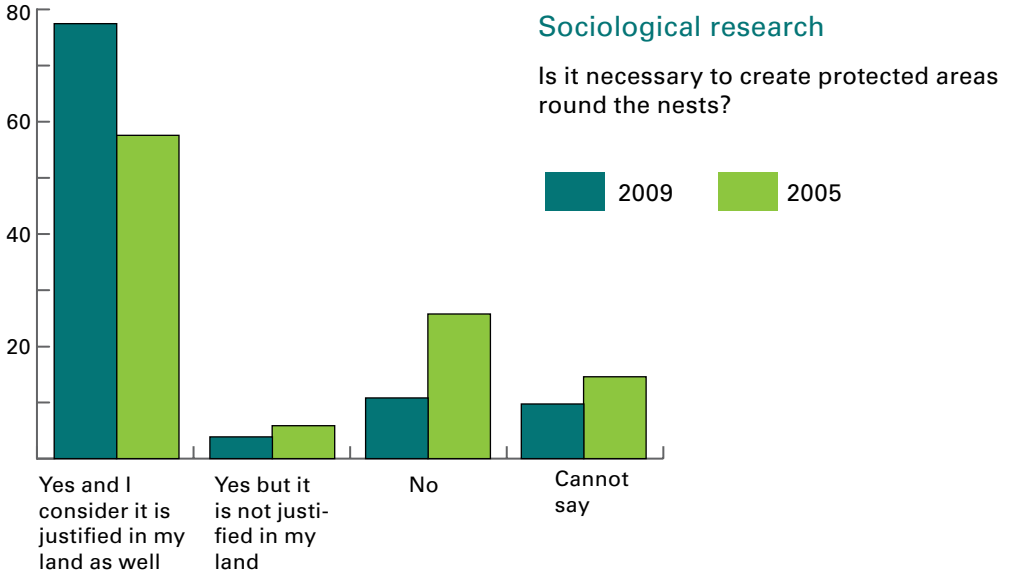
Awareness raising

Probably EAGLELIFE's greatest success is in raising general awareness. Results are difficult to measure, but we organized sociological research in the beginning and at the end of the project to determine overall expectations of both ordinary citizens and restricted landowners.

Sociologists' research showed that four years between two studies is too short a time to achieve major change in society and that economic pressures influence opinion. The conclusions of two studies were as follows:

- The majority (80%) of land owners considers creating protected areas around nests to be necessary and justified; this perception has considerably deepened as compared to 2005. Almost everyone shares the opinion that eagles and black storks play an important role in nature and, as compared to a survey conducted in 2005, the belief that these birds can be regarded as the symbols of nature conservation has become significantly more widespread.

It can be said that the protection of both eagles and the black stork is valued more today than it was in 2005; however, the current situation requires more attention to be paid to economic aspects than was done before. Confirming the aforesaid, almost all respondents (92%) deemed



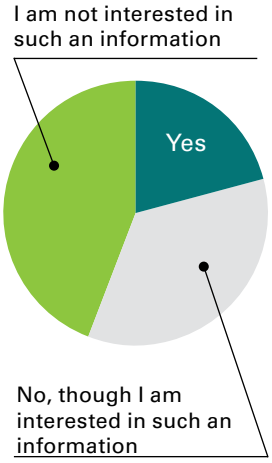
state compensation for the non-management of forest necessary. Such an expectation of the state has become noticeably stronger when compared to 2005.

In addition to the fixation of compensation mechanisms, people most of all expect the state to provide information and education related to nature conservation (32%) – evidently for society as a whole. From nature conservation organizations people most expect annual information regarding the wellbeing of birds nesting in the immediate vicinity (45%). Respondents continue to be concerned that their activities on the land might be restricted even after the birds have already left the area.

Research results are available on the project's website: http://www.kotkas.ee/Eaglelife_ma.htm

Assembled in A4-format is the **booklet "Eagles and Black Storks in Estonia"**, in which these species are introduced according to the information obtained in the course of the EAGLELIFE project. The booklet was published in the Estonian-, Russian- and English languages (8,000, 500, and 1,500 copies, respectively). Target readers were primarly land owners, on whose property eagles nest or feed. In addition, the booklet was distributed to other project target groups, including active web-camera watchers and our colleagues in other nations around the globe.

Are You sufficiently informed about the eagles and Black Stork?



Information sheets and recommendations to land owners. In addition to official protection obligation notices sent to land owners who own land which is the main habitat of black storks or the feeding grounds of eagles, the land owners were also sent information about the success of nesting pairs on their own or adjacent land. Additionally, recommendations were sent concerning the maintenance of spotted eagle feeding grounds (more than 1,000 land owners in total). Many land owners were met with on their land and the situation explained (outside of nesting season, even directly at the nesting tree). This activity will continue after the EAGLELIFE project's conclusion, because sociological studies have shown great interest in this type of additional information (it is the first activity which is expected of the Eagle Club).

Learning days have been surprisingly popular—we were unable to organize them for all those interested. Seventy learning days were organized for a variety of target groups, where topics relating to eagles and black storks were introduced. Most of the seminars took place in schools and other learning institutions. But there were also seminars conducted for foresters, clubs, miscellaneous organizations, as well as for people who took part in the work with eagles. In the course of the project, two large international conferences were held for black stork and spotted eagle researchers (the V International Conference on Black Storks in Romania and the Baltic States-Belarussia United Spotted Eagle conference held in Latvia).

At the end of the project an outdoor seminar was organized aboard the barge Jõmmu, to which the more active participants from previous seminars and events at schools and other educational institutions were invited—30 people in total. The day was spent floating and sailing on the barge and introducing the Emajõe-Suursoo nature conservation area where eagles also were observed during a trip.

Web cameras proved to be one of the great attractions of the project—through the web cameras enthusiasts were able to follow the action in a black storks' nest during three nesting seasons (2007-2009) and two lesser spotted eagle nesting seasons (2008-2009). In 2009, a camera was trained on an sea-eagle nest and during the winter months a winter feeding area for eagles (these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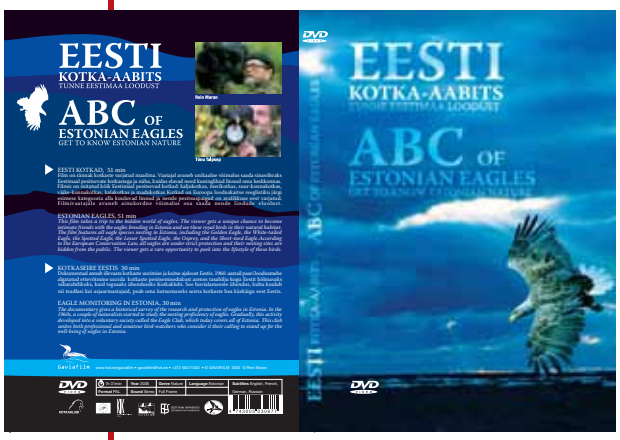
latter only indirectly related to EAGLELIFE.)

During this period, the web cameras drew approximately 8.7 million views—specifically, the camera links were clicked 8.7 million times. During this period, an international friendship society of "storkaholics" (stork-camera dependents) was formed, who communicate mainly through the Nature Calender forum (www.looduskalender.ee/forum/).

By the project's end, roughly 600 people were registered users and many posted their observations to the forum complete with documented evidence.

The web camera served to activate a large part of the media coverage associated with the project. For example, during the spring and summer of 2009, footage from the eagle camera was shown every day on one of Estonia's most-watched television channels. It is likely there are only a very few people in Estonia who are not aware of the eagle pair, Linda and Sulev.

During the project, more than 100 articles appeared in both print- and online media channels. Also, approximately 40 interviews were conducted on radio, and 15 segments about the project species and the project itself television were broadcast during the course of the project. Also, the foreign media showed repeated interest in our activities.



DVD produced: "Estonian Eagle ABCs" (from the film series, "Know Estonian Nature," by Rein Maran). 120 copies were distributed free of charge to a variety of target groups (volunteer helpers, schools and other educational institutions, forest groups, libraries, etc.). In addition to two documentary films ("Estonian Eagles" and "Eagle Monitoring in Estonia"), the DVD contains the multimedia program, "A Guide to Eagles."

International cooperation

Under the framework of international cooperation the project staff took part in a variety of specialty LIFE project conferences and seminars. Study days and fieldwork were accomplished where experiences were shared. For example, at the start of the project we visited our Czech colleagues to study how to install the satellite transmitters on black storks and how they capture the birds. But as the project continued, our experiences are now being followed. During the project, the Eagle Club has become quite known all over Europe. Under the EAGLELIFE project, the colored banding program for European spotted eagles was established and the Eagle Club served to coordinate it. Under the project's framework, we purchased the first 200-400 colored plastic bands for distribution to participating nations (Estonia, Latvia, Lithuania, Poland, Slovakia, Belarussia, and Russia). Henceforth, these states will be responsible for obtaining their own bands for continuation of the program.

There is active participation from people in many nations in following the migration of both the black storks and spotted eagles. An expedition was organized to the largest black stork and greater spotted eagle migration stopping point in the Jordan Valley in Israel, where 45 black stork bands were counted and the information forwarded to specialists in the relevant nations (Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, and Israel). To strengthen cooperation these types of projects are essential.

There has been especially close cooperation with Latvian and Lithuanian colleagues, whose research has been used to evaluate protection measures. The use of GPS transmitters activated international cooperation, as the data transmitted touches many other nations through which our birds fly or winter.

For example, because of our two greater spotted eagles' wintering grounds, the Sava river marsh at the border of Croatia and Serbia was taken under protection and designated as a Important Bird Area (IBA).

Information was shared about web cameras and satellite transmitters, and technical information provided to every curious person in tens of different countries.

Monitoring, inventory, research

Conducted were nesting grounds inventory, appropriateness of protection procedures, and feeding ground management effectiveness surveys, which in the course of the study, known nests were checked and new ones were looked for. Protection methods to date were evaluated for their appropriateness and sufficiency, including the necessity to manage feeding grounds. During the project, more than 100 new nesting places were found (only known nests can be protected). This was achieved through special fieldwork, including nests which citizens had informed us about.

Analysis of protection measures made it clear that the poor year for the lesser spotted eagle (a low population of rodents) did not make a 100-meter nest protection zone sufficient—the influence of annoyances is more prevalent than when feeding conditions are good. A 100-meter radius also does not offer protection from storm winds. Research by Latvian colleagues concluded that even a 250-meter protection radius for the black stork is not always sufficient. As concerned new protection measures, the situation's solution was found in enacting laws identifying species protection sites, or micro reserves. Micro reserves do not have a defineable radius, and borders are suggested by experts following natural boundaries when possible (ditches, paths, rides, etc.).

Feeding ground research showed that unsuitable landscape management (large rapeseed fields or fields fallow for the longer term, for example) influence the spotted eagles negatively primarily in times of low rodent populations. During periods of a high density of rodents, the birds may travel farther to hunt. Black storks travel noticeably farther from the nest in search of food, but it is necessary that the banks of feeding waters (rivers, springs, ditches) are not overgrown with brush.

Our knowledge of greater spotted eagles' and black storks' habitats was broadened significantly with the use of GPS transmitters, where we received the birds' locations every two hours.

Knowledge collected and analysis conducted during the course of the EAGLELIFE project was used to prepare new activity plans.

Continuation and development of EAGLELIFE-initiated activities is the goal of the Eagle Club and the Environmental Board of Estonia. In cooperation, we are able to organize all necessary activities and collect information which enables new goals...

Pictures taken during the course of the EAGLELIFE project by:

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