



Arkipelagia Society – the Friends of the Archipelago National Park

Jouko Lehtonen, Leif Lindgren and Jussi Laaksonlaita

Archipelago National Park

The Archipelago National Park was established in 1984 to the southern Archipelago Sea. It is located about 200 km from Helsinki and 60 km from Turku (Metsähallitus 2015). Visitors can reach the park via Kasnäs (Kemiönsaari) and Nauvo or Korppoo (Parainen). Nature in the region is fascinating the whole year round. The region is comprised of a rugged archipelago ecosystem and ancient bedrock, where juniper and curling pine grow. Thanks to grazing livestock and long-term land management, the region also boasts beautiful, verdant traditional landscapes. The Archipelago National Park is one of the most species-rich regions in Finland. Visitors can also experience archipelago life and culture within the park as well as in co-operation areas outside it. The Archipelago National Park is part of the Archipelago Sea Biosphere Reserve, which was established by UNESCO (Turku Touring 2015).

The park is mainly sea area with thousands of islands situated in the outer archipelago, in the southern part of the Southwestern Archipelago. The National Park can only be reached by sea and there is no road to access the park by car.



Figure 1. The Archipelago National Park is located at the south part of the Archipelago Sea, between the Finnish continent and the Åland islands (Metsähallitus and National Land Survey of Finland 2015).

There are free ferry services to all the inhabited islands. National Park services are available on the Jurmo Island, Björkö Island and the Berghamn Island in the municipality of Pargas or in Finnish, Parainen, and on the islands of Holma, Öro and Högsåra in the municipality of Kimitoön or in Finnish, Kemiönsaari. (see more Metsähallitus 2015).

Arkipelagia Society

Arkipelagia Society was founded in 1992 by founding members coming from academia, business, arts and conservation actors (Arkipelagia-seura 2015). Today, Arkipelagia Society is the friendship association of the Archipelago National Park with about 80 members. In addition, a number of active ornithologists and other nature experts have participated field actions and Arkipelagia Society has about 3000 followers on Facebook.

Arkipelagia Society has two main focuses, working with culture and nature values in the Archipelago Sea. The society has two languages in daily use, Finnish and Swedish. Both languages are native languages in the Archipelago Sea, Finnish in the north and Swedish in southern and western parts of the archipelago.

Conservation activities of Arkipelagia Society

Arkipelagia Society has worked for decades to protect biodiversity in the Archipelago Sea. Conservation activities have been focused on several species, especially Apollo butterfly, the Elder-flowered orchid and Peregrine falcon. When all efforts are located on islands without normal road connections, it is essential that field actions can be supported by the society's own boat, m/s "Arkipelagia".

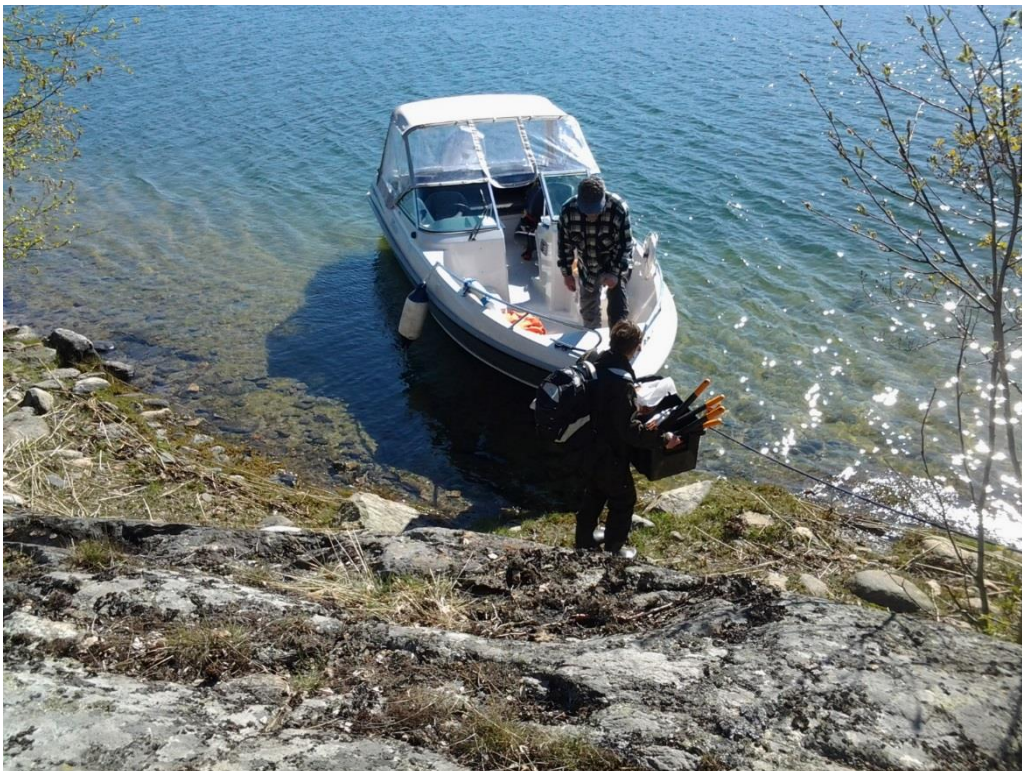


Figure 2. The Society owns m/s "Arkipelagia". Photo: Oili Pyysalo.



Figure 3. Apollo butterfly. Photo: Jussi Laaksonlaita.

Apollo (*Parnassius apollo*)

The Apollo butterfly is classified endangered in the Red list of species (2010). In Finland it has been protected by Nature Conservation Act. Distribution area covers large part of south and southeast Finland. Number of Apollo butterflies and populations has been decreasing Europe-wide and it has been lost from some former occurrence areas and countries.

In Finland the distribution area covers only some limited parts of the southwest archipelago and few small areas in southern Finland; there are totally four distribution areas separated from each other. Distance between the distribution areas is 100 to 150 km and there is a risk to get genetically isolated subpopulations.

In Central and Southern Europe the Apollo butterfly inhabits mountain meadows and pastures, up to 2,000 meters above sea level. In Finland, Apollo mostly inhabits sun-drenched rocks and islets in the archipelago area.

Due to its specialized requirements, Apollo is highly vulnerable to changes in habitat and climate. Also collecting, traffic and acid rain are considered as threats and may decrease in the number of Apollo butterflies.

Arkipelagia Society has collected information of Apollo butterfly's distribution and occurrence in the Archipelago Sea. Observations have been asked from public via Facebook and newspaper surveys. Both new and old discoveries have been collected successfully. Caterpillar observations have been done from April until June and, in addition, observations in known occurrence areas, when the butterflies are seen on the wing in mid-summer (beginning of July – mid August). Due to observations by active members and public, new occurrences have been discovered and "hot-spots" may have been determined, which helps to target conservation actions.

Arkipelagia Society has started co-operation with landowners and authorities to develop land-use and to find new ways to preserve areas and habitats important to butterflies, focusing especially on later roadside mowing and actions, where habitats/occurrence areas should be taken into account, when planning and implementing forest management. A new option to support Apollo has been recognized at electric power line streets that are kept open. In maintenance of electric lines, it has been considered that minor changes in working routines may create optimal environment for Apollo caterpillars and flying butterflies.



Figure 4. The Elder-flowered Orchid. Photo: Leif Lindgren.

The Elder-flowered Orchid (*Dactylorhiza sambucina*)

The Elder-flowered Orchid flowers in May and June and has two color forms, a purple one and a light yellow one. It is rare and declining in Finland. It has been under active protection.

The Elder-flowered Orchid grows preferably on calcareous meadows and pastures. The characteristic biotopes are wooded meadows, wooded pastures or forest pastures. In many places these open or forested grasslands and pastures are nowadays left unmanaged. When the site is left unmanaged the species numbers are declining rapidly after a longer period of time.

The Arkipelagia Society has organized voluntary camps in order to stop this decline of the orchid on at least some representative places in the archipelago. The work is done on carefully chosen, rather small spots. We give the stands of the Elder-flowered Orchid light and space by removing trees and bushes that are overshadowing it.

Peregrine falcon (*Falco peregrinus*)

Peregrine falcons nested until 1960's everywhere in Finland, and in the Archipelago Sea too. Today, Peregrines are nesting only in northern Finland. However, there are some falcons overwintering in the outer archipelago and new boxes have been installed to these areas to help birds to start living in these environments. According to experiences e.g. in the UK, boxes are recommended to be installed to extremely high locations. In Finland, boxes have been installed to high marine signal towers in the islands and onto silos on the continent.



Figures 5 and 6. Nest boxes for peregrine falcons have been constructed and installed to high locations by volunteers of Arkipelagia Society . Photo: Jaakko Ruola & Jouko Lehtonen.

Competition on tallest trees in the Archipelago Sea



Figure 7.

The tallest pine in competition 2015.

Arkipelagia Society has started a new competition to find the tallest tree. In 2015 the target was the tallest pine in three series:

- the tallest tree of each island,
- the tallest tree of the Archipelago National Park and
- the tallest tree of the whole Archipelago Sea.

The competition was successful and proposals for the tallest pine were collected from 50 islands around the archipelago. The tallest pine was a real giant, diameter 410 cm measured on the level 1,3 m above the ground.

Photo. Pipsa Lappalainen.

Go ArchipelaGo

The Archipelago National Park and Arkipelagia Society have planned to establish a social media campaign to get positive attention and awareness to the Archipelago Sea. The campaign has been planned to have a title of “Go ArchipelaGo” activating sustainable travel to the Archipelago Sea, including ideas to contribute positive efforts to the area. Joining the campaign can offer new innovations and ideas to be pro archipelago – and with a lot of enjoyment among local culture and nature.

Co-operation between the park and the friends

Arkipelagia Society and the Archipelago National Park have started collaboration and made an official agreement on friendship in 2012. Methods for co-operations are under development today. The first attempt for mutual action planning has been done for year 2016. To date, collaborative activities have been focused on endangered species as the Elder-flowered Orchid, Peregrine Falcon and Apollo Butterfly and in addition on competition to find the tallest pine in the Archipelago Sea.

Table 1. Co-operation between the Archipelago NP and the Arkipelagia Society.

Activity and objectives	National Park’s contribution	Arkipelagia Society’s contribution
Maintaining the meadows on the islands Örö and Stora Buskär.	Supervision of works, tools, logistics.	Volunteer working.
Conservation of the Elder-flowered Orchid.	Site information on islands owned by the state .	Observations of flowering plants. Database on observations. Volunteer working to open meadows.
Conservation of Apollo Butterfly.	Implementation of a proposal to establish the “Apollo Centre” to southern archipelago (proposed by Arkipelagia Society).	Observations of caterpillars and flying adults. Database on observations. Volunteer working to open meadows and to add nectar flowers.
Effective use of m/s <i>Arkipelagia</i> (an aluminum boat: Silver Eagle 630) for park management.	Staff used for field operations.	Owner. Field operations on the Elder-flowered Orchid, Apollo Butterfly, White-tailed Eagle, Peregrine Falcon nest boxes.
Media collaboration	Sharing of Facebook posts.	Sharing of Facebook posts.
Mini seminars in Turku (outside of the Park) for awareness rising.	Media collaboration.	Implementation.



Figure 8 and 9. Volunteers enjoy heavy work and peaceful moments after a heavy working day on an island. Photos: Oili Pyysalo.

Lessons learned and success stories

It has become obvious that volunteers have an important role in conservation actions of the Archipelago National Park:

- Knowledge on the Elder-flowered Orchid has been developed and e.g. number of flowers has increased from 100 to 3000 on Jungfruskär (island close to Åland), thanks to huge volunteer efforts during 20 years with a group of Archipelagia NP partners (Arkipelagia Society and many others/volunteers).
- White-tailed Eagles have today in the Archipelago Sea about 200 territories, after 40 years efforts and starting from less than 20 territories. Archipelagia NP partners include WWF/volunteers and Coast Guard.
- Collaboration between volunteers and National Parks and other actors may create new success stories (Apollo Butterfly, Peregrine Falcon...) when the goals are clear and the partners are properly committed.

References

Arkipelagia-seura 2015. <http://www.arkipelagia.fi/>

Metsähallitus 2015. <http://www.nationalparks.fi/en/archipelagonp/directionsandmaps>

Turku Touring 2015. http://www.visitturku.fi/en/archipelago-national-park_



Figure 10.

Apollo.

Photo: Jaakko Ruola.

