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The Role of Aage V. Jensen Charity Foundation in the protection and preservation of nature in Denmark and Greenland

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Aage V. Jensen Charity Foundation was created by the Danish entrepreneur Aage V. Jensen in 1980 as a Liechtenstein based foundation of international outreach in the field of nature protection and preservation. Guido Meier has been a member of the Board of Foundation between 1985 and 2018. Throughout this entire period, he has played a very active role in building up the Foundation's activities. Many of these activities have focused on Denmark and Greenland in accordance with the guidelines of the Founder. This contribution deals mainly with the importance of the Foundation's activities for nature protection in Denmark but closes with a description of the Foundation's activities in Greenland.

Over the past quarter century, Aage V. Jensen Charity Foundation (AVJCF), Vaduz, and later its Danish established foundation, Aage V. Jensen Nature Foundation (AVJNF), have played an instrumental role in the protection and preservation of Danish nature. Societal and political understanding of nature as well as the importance of biodiversity has undergone enormous transformation during the period both in Denmark and globally. In response, the tools used to deliver on Jensen's legacy have also evolved and diversified over time. Initially, AVJCF found itself in a position of opposition to government interests and, in particular, to agricultural interests. Today, the Foundation's interests are more in harmony with official government policy but still in conflict with some segments of the agricultural community. Some of the two foundations' activities have been catalytic with respect for the transformation of the general understanding of nature. An example here is the current debate in Denmark in proportion to the establishment of nature national parks, where designated areas are to be fenced in to allow the introduction of large grazers (rewilding). A project supported by AVJNF provided the background for the government's proposal to establish these national nature parks.

I. The Role of Aage V. Jensen Charity Foundation in the protection and preservation of nature in Denmark

Katherine Richardson

A. Introduction

When he died in 1986, the entrepreneur, Aage V. Jensen, left a substantial portion of his estate "to support the conservation of nature and species of animals in the whole world"[1]. While Aage V. Jensen Charity Foundation (AVJCF), the entity charged with executing Jensen's directive, has supported activities in several countries and continents, the Foundation's activities have made particularly important contributions to nature conservation in Denmark. Thanks to investments made by AVJCF, the Danish established foundation (established in 2007), Aage V. Jensen Nature Foundation (AVJNF), today finds itself as the largest private landowner in Denmark. While a highly cultivated landscape such as Denmark's contains little or no "pristine" natural area, some of the most valuable areas in Denmark – in terms of nature and biodiversity protection – are found in the property portfolio of AVJNF. These include:

- Lille Vildmose: a protected and partially restored peat bog in Jutland;
- Vejlerne: a series of fresh and brackish water lakes in northern Jutland attracting and supporting myriad migrating birds. The region was established in connection with a failed attempt to transform shallow marine areas into farmland in the 1800s;
- Gyldensteen Strand on the northern coast of Funen and the nearby island Æbelø, where, in addition to preservation / protection of terrestrial biodiversity, projects are currently underway with a focus on developing the knowledge and understanding necessary to return agricultural lands previously reclaimed from shallow marine areas back into coastal lagoons, and

1 Kofoed, 2013, p. 194.

– Filsø, a lake located near Varde on the Danish west coast. Earlier in Denmark's history, this lake was the country's second largest[2] but beginning in the middle of the 1800s, the lake was drained to create agricultural land. AVJNF purchased (2010) and restored the area to a lake, in a somewhat smaller version than the original. Today, the restored Filsø hosts more plant species than any other lake in Denmark.

Together with the other smaller areas owned by Aage V. Jensen Nature Foundation, these properties receive over 1.3 million visitors annually[3].

B. Shifting baselines in the perception of nature protection

When AVJCF was established in the mid-1980s it was not clear that the best or most obvious strategy for protecting nature was land ownership. Indeed, one of the earliest tools envisioned by the Foundation to preserve nature in Denmark was to purchase land and donate it to the Danish state with the expectation that the state should then assume the responsibility for the protection of the biodiversity found on the parcel.[4] Although Denmark in some respects had been a first mover in terms of recognizing the need for public management of the environment, the idea of nature having value as an entity in its own right was not widespread at this time, neither in the public nor amongst politicians.

As one of the first countries in the world, Denmark established an Environmental Ministry in 1971. Initially, this ministry focused solely on pollution and its mitigation (Ministry for Combatting Pollution, *Ministeriet for Forureningsbekæmpelse*). However, in 1973, the Ministry's name was changed to Ministry for the Environment, and the agency responsible for forests (*Skovstyrelsen*) was moved from the Agricultural Ministry to this new ministry. Most, i.e., over 60 % (then and now), of

2 Jepsen, 2012, p. 384.
3 Aage V Jensen Nature Foundation Annual Report 2021: https://www.avjf.dk/wp-content/uploads/2022/05/AVJNF-Aarsrapport-2021.pdf
4 Personal communication with Leif Skov, board member of AVJCF since its creation until 2009.

the land area in Denmark had been converted to agricultural land and, in keeping with historical tradition, forests were primarily considered of interest as timber production units, thus explaining the Forest Agency's previous placement under the Ministry for Agriculture. In the late 1970s, and early 1980s, focus began to be directed towards forests as recreational destinations as well.[5,6]

In 1987, the Danish Forest Agency *(Skovstyrelsen)* was merged with the agency responsible for the preservation of cultural heritage *(Fredningstyrelsen)* to create The Forest and Nature Agency *(Skov- og Naturstyrelsen)*, placed under the Ministry of the Environment. Focus on nature conservation was strengthened within in the public administration system in 1989 with the adoption of the *Naturforvaltningsloven* (Nature management law, author's translation) which had among its aims to "protect and improve conditions for wild plants and animals" (author's translation). The law was incorporated into *Naturbeskyttelsesloven* (Nature protection law; author's translation) in 1992. Throughout this period, more and more attention was brought to improving nature protection in the production forests owned by the state[7].

While interest in nature conservation on state-owned land was developing in the 1980s and early 90s among government officials, the same interest had not yet emerged amongst the political parties in power during this period. AVJCF began purchasing land in 1988 (Høstemark, now a part of Lille Vildmose) in an attempt to protect the most valuable (in the context of nature conservation) Danish biotopes, when the government, under the leadership of Prime Minister Poul Schluter, began selling off state owned property. At this time, there were no other private foundations in Denmark that both had focus on nature conservation and sufficient economic muscle to facilitate purchase of large tracts of land for conservation purposes. Therefore, AVJCF became a "go to" for organisations (as well as public officials) concerned about the potential fate of some of Denmark's most unique and valuable nature areas if they were to be sold on the open market. Land purchase continues to be a tool used today by AVJNF but against a very different background.

5 Christensen, 1984, pp. 52–60.
6 Koch & Jensen, 1988, pp. 243–516.
7 https://mst.dk/media/116917/naturpleje_skov.pdf

Table 1. Locations (size given in hectares) of land areas purchased in Denmark by AVJCF or AVJNF. Year of purchase is given in the first column.

Year	Area	Size (ha)	Description
1988	Høstemark	574	Old, indigenous grazing forest with very high biodiversity
1990	Snarup Mose	75	Bog/woodland with a rich insect life – Funen's best butterfly location
1993	Vejlerne	5,436	One of Northern Europe's most important bird areas
1995	Æbelø	212	A protected natural gem with older deciduous forests, exciting geology and a rich insect life
1998	Ølundgård	161	Restored bird reserve at Odense Fjord with both breeding and resting birds
	Raagø	96	Restoration project and extensive salt marshes on an island in the Småland Sea
1999	Vaserne	53	Urban natural area with swamp forests and small lakes with a rich bird life
	Blegmosen	5	Overgrown high bog remnant with a rich insect life
2000	Hulsig Hede	791	One of Europe's best examples of untouched Atlantic dunes
	Råbjerg Mose	66	A unique landscape with a large heath marsh
2001	Tofte	3,993	Northwest Europe's largest raised bog and indigenous deciduous forests
2002	Ovstrup Hede	499	Expansive heath landscape with a red spruce plantation under conversion to deciduous trees
2003	Portlandmosen	486	Restored raised bog in Lille Vildmose with excellent public access
	Sundbakkerne	32	Near-urban grassland with stone dykes and *Lacerta agilis* (the sand lizard)
	Råbjerg Hede	386	Beautiful heath landscape with untouched Atlantic high dunes along the west coast
	Vorup	110	Restored near-urban meadows along the longest stream in Denmark
2004	Kallø Grå	40	Coastal natural area with a very rich birdlife and wet meadows with Hairy Sea Blite
	Kåsegård	59	Siliceous inland cliffs on Bornholm, where the rare elder-flowered orchid grows
2005	Vilsted Sø	857	Recreated lake with reed forests – more than 200 bird species have been observed in the area
	Mjels Sø	55	Restored lake with a healthy fish population and excellent public facilities
2006	Væth Enge	106	Restored meadows with a rich bird life
	Hornbæk Enge	126	Restored near-urban meadows along the longest stream in Denmark
2007	Bjerget	6	One of central Zealand's most beautiful views

Year	Area	Size (ha)	Description
2008	Vitsø	112	Restored freshwater lake with flower meadows. Ærø's best bird location
2009	Mågerodde	47	Undisturbed salt meadow, which is part of the roosting area for light-bellied Brant Goose
2011	Filsø	2,296	A restored lake that now has the greatest number of species of aquatic plants in Denmark
	Gyldensteen	615	Coastal lagoon, meadow lake, and a forest with its own natural space and exhibition
2013	Birkesøarealerne	150	Restored lake in Lille Vildmose containing bird islands with rich bird life
2018	Aaby Mose	278	Denmark's third largest raised bog–part of Store Vildmose
2019	Bundsø	153	Restored lake with many resting birds, especially ducks and geese
2020	Søholt Storskov	1,134	A unique collection of shallow lakes surrounded by extensive forests and areas open to light

Where the initial incentive with purchase was to prevent valuable nature areas from being developed and destroyed, purchases in recent years, e.g., Filsø, Gyldensteen Strand, Søholt, have been with the intent of nature restoration. That is, the purchase of lands previously used for agriculture that, owing to their location, are believed to have the potential to be developed into valuable habitats for nature. Knowledge as to how best to restore nature on agricultural land is lacking and AVJNF has invested significantly in baseline monitoring of newly purchased areas in order to be able to document distribution patterns and rates of reestablishment of species in these areas. The establishment of these baselines for nature restoration projects is particularly valuable and, in recent years, rather unique to the Foundations' activities as baseline monitoring is difficult sell in a political system where environmental ministers generally prefer the visibility associated with the purchase and opening of new areas to the announcement of financial support for monitoring initiatives. This has led AVJNF to finance baseline monitoring of government-supported nature restoration initiatives. For example, the Danish Government has recently announced that all production and intervention on approx. 75,000 hectares of state owned forest will be stopped in order to let nature develop without interference and it is AVJNF that is financing the baseline monitoring for this initiative.

Most of the area in Denmark suitable for nature conservation or restoration was zoned for agriculture when AVJCF began its land purchases in the late 1980s. This made the acquisition of large tracts of open land for conservation purposes difficult as agriculture and nature conservation interests were seen as being in direct contradiction with one another. Today, many local farmers would still rather see land used for agriculture than for nature. This local resistance occasionally manifests itself as graffiti or worse forms of vandalism (leading in the case of a recent project supported by the AVJNF to multiple arrests[8]). However, the Farmer's Organisation in Denmark *(Landbrug og Fødevarer)* now, at least publicly, wants to be seen as constructively contributing to initiatives related to nature conservation.

During AVJCF's early history, however, the purchase of agricultural land had to be approved by the local agricultural commission *(Jordbrugskommissionen)*. Such commissions were established in each county to oversee the sale and use of land area designated for agricultural use through the 1999 Agricultural Act §30 and earlier Agricultural Acts. They consisted of three members: A lawyer appointed by the county, a farmer appointed by the Danish farm holder associations and a smallholder appointed by the Danish Family Farming Association *(Husmandsforeningen)*. Each of the three members had a veto right (§30 a subsection 2).

In 2002, when AVJCF was attempting to purchase property around Lake Søborg in North Zealand, the farmer on the local commission activated his veto right. Not long afterwards, the Danish farm holder associations issued a call to their representatives in the remaining agricultural commissions, to reject the sale of land for nature conservation purposes. It was clear that this action was directed at the activities of AVJCF, as it was, at the time, the only private nature foundation with the objective of acquiring land in order to protect nature and wildlife. This blatant action by agricultural interests to restrict the Foundation's activities was exploited by Leif Skov, the at that time Chair of AVJCF's Board, as a lever to focus ministerial attention on the difficulties encountered in purchasing land for nature conservation. The resulting debate, which involved among others the former EU Commissioner for the Environment, Ritt

8 https://eng.naturstyrelsen.dk/nature-protection/nature-projects/life-lille-vildmose

Bjerregaard, ultimately led to the adoption in 2004 of three significant provisions in the Agricultural Act that made it much easier for foundations such as AVJCF to purchase land:

a. Private actors were given access to acquiring agricultural land for nature conservation purposes.
b. Nature conservation was equated with other forms of agricultural land management.
c. The agricultural commissions were expanded with two additional members, coming respectively from The Danish Society for Nature Conservation *(Danmarks Naturfredningsforeningen)* and The Danish Outdoor Council *(Friluftsrådet)*. In addition, the veto right for individual members was repealed.

Thus, during the first two decades of AVJCF's operation, the legal framework for private interests to invest in nature conservation in Denmark was developed. Given the increasing global focus on nature and nature conservation, such a framework would undoubtedly have been developed at some point in the state even in the absence of the Foundation's activities. However, given the strength of the agricultural lobby in Denmark, it is hard to imagine that the changes made in the legal system, allowing purchase of land for nature protection, would have occurred as early as they did without the presence of an actor such as AVJCF.

The new possibilities for acquiring agricultural land for nature conservation in Denmark provided by the changes to the Agricultural Act led AVJCF to consider establishing of a nature foundation based in Denmark and, in 2007, the Aage V. Jensen Nature Foundation (AVJNF) was created. In addition to a large financial contribution, the new foundation was gifted with the 24 nature areas in Denmark, acquired by AVJCF between 1988 and 2007.

Although there was growing interest for nature conservation in Denmark in the latter part of the 20th Century, the country at the turn of the century, still had no official strategy for the protection and conservation of nature and biodiversity. In response to an OECD report[9] critici-

9 OECD (1999), OECD Environmental Performance Reviews: Denmark 1999, OECD Environmental Performance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264172548-en.

zing this lack of national policy, The Wilhjelm committee *(Wilhjelmudvalget)* was established in 2000 by the then Ministers for Environment and Agriculture and charged with "preparing a report that could be a starting point for the Government's strategy for biodiversity and nature conservation" (author's translation)[10]. In a somewhat belated response to the Wilhjelm Committee's report, the Danish state adopted a law for establishing national parks in 2007. While these parks are placed in regions with nature of particular interest (the first two, for example, are located around the coastal dunes near Thy along the Danish west coast and in Mols Bjerge, a hilly region in the eastern part of Jutland), many felt that there was too little focus on increasing or bettering nature conservation in these parks. Today, in Denmark, there are five national parks. Thus, despite the establishment of national parks, the largest land tracts in Denmark devoted specifically to nature conservation were still those purchased by AVJCF or AVJNF. In 2020, legislation was passed to establish a series of national nature parks where nature conservation is in focus. These national nature parks have yet to be realized but, according to the Nature Agency's home page, their purpose will be to establish areas "where nature has room to be nature and at the same time provide exciting experiences in nature …[In nature national parks] there is no agriculture and the forests no longer used for commercial production. Large grazing animals will be released that will contribute to the creation of interesting nature, where there are many different habitats for animals and plants. The large grazers will contribute to ensuring the areas do not develop into thick, dark forest and ensure that meadows, heath areas and dry grasslands with their associated plants and animals continue to have suitable habitats. The areas' natural hydrology will, as far as possible, be restored – small lakes, ponds and marshes will return to the landscape."[11] (author's translation). Thus, almost three decades after AVJCF's establishment, there are finally national policies for nature conservation that align with the intentions behind Aage V. Jensen's legacy.

10 The Chair and Vice Chair of the committee, Nils Wilhjelm and the author Katherine Richardson, were later members of the initial board when AVJCF established AVJNF.

11 Naturnationalparker (naturstyrelsen.dk).

C. From species to ecosystem protection and restoration

While societal and political awareness was evolving towards the understanding that nature has a value in itself – a value that with the 2004 changes in the Danish agricultural law can in some cases be equated with the economic value of agriculture – the understanding of nature and how nature conservation is best achieved was also changing. Conservation biology was an emerging discipline at the time when Jensen established the Foundation. Soulé[12] described this discipline as addressing the "dynamics and problems of perturbed species, communities, and ecosystems". While the academic community technically included ecosystems as objects of interest in terms of nature conservation, the focus at this time was very much on species, specifically the presence / absence of species recognized as threatened by human activities. Already in 1964, the IUCN Red-list[13] over threatened species was established. This list became a focus both for the monitoring of nature and in legislation. Indeed, in Denmark as in other European countries, some areas are still protected based on the presence of certain species and these areas are managed with protection of only that particular species in focus. Pressure from NGOs with interest in a particular group of organisms, for example birds or orchids, can increase the focus on only a selected portion of an ecosystem as well.

As a result, nature conservation took as its starting point the protection of areas where specific threatened species were known to occur. These species, without exception, were large enough to be easily observed and identified with the naked (human) eye. Furthermore, nature protection was by most people considered as being a land-based activity. Not only were the small organisms, insects, fungi, and microorganisms, which are responsible for the regeneration of nutrients within ecosystems, largely ignored, but nature in the ocean was also excluded in most nature protection initiatives. Life started in the ocean and the ocean covers over 70 % of the Earth's surface. Nothing suggests that nature in the

12 Soulé, 1985, pp. 727–734.
13 https://www.iucnredlist.org/resources/iucn-1964

ocean is less important than nature on land or that it is less in need of protection against human perturbation than that on land. However, as land animals, we humans lack direct visual confrontation with the damage our activities are having on nature in the ocean.

In the decades since the Foundation was established, there has been in the scientific community a gradual move from conservation biology towards "conservation science"[14] which recognizes that understanding the interactions between species – including humans – is critical for the protection of nature. As a result, there is now a scientific focus on entire ecosystems and how they function as well as on "ecosystem services", i. e., the myriad ways in which nature supports human civilization[15]. There is also a recognition that the ultimate ecosystem service provided by nature is its regulation of global environmental conditions. That it hosts life makes the Earth unique as a body in our solar system, and it is the interaction between the biosphere (all living organisms) and the climate that creates the overall environmental conditions experienced on Earth.

Considering all living organisms as a single unit affecting the environmental conditions on Earth is a central characteristic of the relatively new scientific domain, Earth system science[16]. Conservation science and Earth system science are closely related. The latter recognizes the need for maintaining a robust and resilient biosphere in order to preserve the environmental conditions of recent millennia (the period in which everything associated with modern civilization has evolved[17]), while conservation science focuses on maintaining or restoring the ecosystems that constitute a robust and resilient biosphere. In parallel with the development of conservation and Earth system science, international policy has also begun to address nature protection from a much broader perspective than through red-listed species. Of the 17 UN Sustainability Goals adopted in 2015, two are devoted to nature conservation: #14 Life under water, which focuses on marine life and #15, Life on land.

14 Kareiva / Marvier, 2012, pp. 962–969.
15 https://ipbes.net/global-assessment
16 Steffen et al., 2020, pp. 54–63.
17 Rockström et al., 2009, pp. 472–475.

There has then been an international scientific and policy movement over the past three decades from nature conservation with a species focus to a more general ecosystem focus and towards broadening the understanding of threatened nature as being found in not only in the terrestrial but also in the marine realm. This international movement has been mirrored in the activities of AVJCF, and later AVJNF, where the strategy of the latter is focused on preserving or restoring well-functioning ecosystems rather than on species distributions.

On some of the areas owned by AVJNF, there is still a legal requirement to manage with the aim of protecting identified threatened species or specific habitats. For areas not covered by such mandates, the overall goal is to let ecosystems develop without intervention. This means no introduction or removal of species unless there is reason to believe that the action would lead to a more robust ecosystem in that locality. While at first glance this policy might seem to be uncontroversial, it can lead to conflict and frustration in relation to some stakeholders as, for example, ornithologists would sometimes like to see the fox population regulated and it can be tempting to introduce iconic or rare species following completion of a nature restoration project. Nevertheless, AVJNF's current policy is to let nature develop according to its own premises in so far as possible. The Foundation's close collaboration with the scientific community facilitated the evolution of this approach to management of ecosystems rather than species. Given the large percentage of nature conservation area in Denmark managed by AVJNF, Aage V. Jensen's legacy has been an important catalyst in bringing ecosystem-based management to nature conservation in Denmark.

There is also no doubt that the Foundation's activities have been instrumental in raising awareness in Denmark about the need for conservation efforts focusing on marine ecosystems. The restoration of a marine lagoon at Gyldensteen Strand on the north coast of Funen was the first project in Denmark (and possibly world-wide) with a focus on reclaiming a marine habitat which previously had been destroyed by filling in shallow marine waters, to create agricultural land. While the restoration process of the lagoon is still in progress, the site itself is well visited and on-site materials provide the visitor with information on how filling in shallow marine areas on land impacts marine ecosystems. In addition, the material introduces the visitor to marine ecosystems and the species that comprise them. AVJNF has also supported numerous pro-

jects with NGOs as facilitators aimed at interesting and engaging politicians and citizens in marine nature conservation[18] and developing teaching materials focusing on marine nature conservation for use in secondary schools.[19]

It is not possible to quantify the effect of the Foundation's support for outreach relating to marine nature conservation as other actors have, of course, also supported such activities, but the Foundation has historically been a dominant actor on this front. It is also not possible to gauge the precise impact that such outreach activities have in changing public and political opinion. Nevertheless, recent developments demonstrate a step-change in recognition of marine nature as being threatened by human activities both within the public and amongst politicians. Velux Foundation, a philanthropic organisation based in Denmark, established a think tank in 2021 devoted to protecting and restoring marine nature.[20] The membership list of this think tank, which includes an impressive list of companies, documents that an interest in for marine nature is evolving in Denmark.

Also the fate of a proposal presented by the Danish Government in 2021 for allocation of marine area for different purposes, documents a changed awareness of marine nature as being threatened. The proposal was widely criticized for its lack of respect for the needs of nature and, ultimately, retracted. Negotiations are at the time of writing still underway in an attempt to develop a new plan for presentation to Parliament but the responsible minister has already announced that the revised plan will include a much larger area allocated to marine nature protection.[21] Thus, there now appears to be a widespread appreciation in Denmark for the need for nature conservation in the ocean and it seems likely that the focus given by AVJNF to marine nature conservation was a catalyst in the development of this appreciation.

18 https://wwf.dk/om-os/hvor-kaemper-vi/projekt-danskerne-havet/
19 https://undervisning.wwf.dk/opdag-havet
20 https://www.taenketankenhav.dk/
21 https://havplan.dk/en/about

D. Creating local "ownership"

Conservation science recognizes that ecosystems are comprised of both human and non-human organisms.[22] In other words, there are interactions between humans and nature that cannot be ignored if efforts to protect the non-human components of ecosystems are to be successful. People use nature and therefore it cannot be protected isolated from consideration of the human-nature interactions. Ultimately, the use of nature is in conflict with its protection. This is why the need for nature conservation has developed. However, the Foundation's philosophy has always been – as far as possible – to combine the use and protection of nature in the management of its properties, where "use" has largely been limited to providing access to and information about nature. Even here, however, conflict can occur and in such cases, protection of nature has always been prioritized. The closure of nature conservation areas for public access with the aim of protecting nature has led to some criticism over time. In reality, however, there is free access to the vast majority of the areas owned by the AVJNF. Furthermore, high quality facilities (parking, bird-watching towers, walkways, toilets, handicap-friendly boats, etc.) are provided in an effort to actively encourage the public to visit and appreciate Danish nature.

Since the beginning of AVJCF's activities in Denmark, the value of bringing local stakeholders to the table in relation to nature conservation initiatives has been appreciated and several strategies for doing so have been developed over time. Firstly, for all of the larger conservation properties owned by the Foundation, and later AVJNF, a user panel was established. Individuals nominated by NGO stakeholders populate these panels. Examples of NGOs invited to nominate members to these panels are the Ornithological Society *(Dansk Ornitologisk Forening)*; the Danish Society for Nature Conservation *(Naturfredningsforeningen)*, and the Outdoor Council *(Friluftsrådet)*. In addition, some individuals on the panel are appointed by the AVJNF. Usually, these members have expert knowledge in some aspect of nature of specific interest for the property in question. The panels do not have decision-making power but are charged with making recommendations concerning the manage-

22 Kareiva / Marvier, 2012, pp. 962–969.

ment of the properties that are later considered by the Board of AVJNF. The panels thus ensure local input to the decision-making regarding the area's development. At the same time, panel members serve as ambassadors for the area in their respective communities. Furthermore, the panels provide a forum for seeking compromise in relation to different stakeholder interests.

Another model employed by AVJCF / AVJNF to ensure stakeholder involvement in nature conservation initiatives is the purchase of land on behalf of others who, then, are responsible for developing and executing management plans. This model was used with great success for a part of the land associated with Lille Vildmose *(Mellemområdet)*. With the financial support of the AVJCF, the area was fenced so that large grazers, in this case moose and red deer, could be released. This example is particularly interesting in light of the Danish Government's recent decision to create national nature parks in the state-owned forests where the intent is to fence and introduce large grazers. The plans have met enormous local resistance in some areas. Several of the interviewees contacted by this author compared the generally positive local response to the release of large grazers in Lille Vildmose with the current controversy regarding their planned release in national forests and stated that they believe the difference was the lack of inclusion of local stakeholders in the Government decision.

Most recently, AVJNF actively lobbied for and financially supported the creation of an independent, private, non-profit foundation, the Danish Nature Fund, for the protection of nature. In essence, the purpose of this new foundation is identical to that of AVJNF: "to improve the state of nature and the aquatic environment in Denmark" (author's translation). In addition, this new foundation has the expressed goal of increasing citizen support for and participation in nature conservation in Denmark. Ideally, the Danish Nature Fund will attract legacy contributions from nature-interested citizens and become an institution to which a large percentage of Danes will feel allegiance and a sense of "ownership" to a degree that would be impossible for private philanthropic foundations such as AVJCF / AVJNF to achieve. The Danish Nature Fund was established in 2015 and while it is too early to assess the success of the initiative, the foundation has made a promising start with both investment in new areas dedicated to nature conservation and initiatives designed to develop a sense of ownership of nature in the Danish populace.

E. Providing a voice for nature

Nature cannot speak up in its own defense, at least not in the language normally employed in societal decision-making. Therefore, the conflict between other societal uses for land / nature and nature conservation often leads to decisions favoring the other societal uses. Raising interest and awareness among Danes for nature by encouraging and inviting visitors to its nature conservation areas is one strategy AVJCF and later AVJNF have been used to encourage citizens to speak up on behalf of nature conservation, but other strategies are also used.

Firstly, the AVJNF supports educational activities. While a university education in biology previously focused on organisms, nature and nature conservation, the on-going revolution in the development of gene-probing methodologies has meant that the education of "rubber boot" biologists, i. e., those that use nature as their laboratory, is no longer in focus. To ensure a continued focus on biodiversity and nature in tertiary education in Denmark, AVJNF has supported the establishment of a professor position at the University of Copenhagen. Through this position, numerous undergraduate and graduate students carry out their research on the properties owned by AVJNF.

Another mechanism employed to give nature a voice is financial support of NGOs in their political lobbying and outreach activities. Examples here include support to WWF for outreach with a focus on marine nature, and to the Danish co-ordination center for the International Panel on Biodiversity and Ecosystem Services (IPBES) for the development of teaching materials on biodiversity at secondary schools.

In addition to supporting NGOs in their activities, AVJNF also directly sponsors the development of outreach material, including the publication of books addressing different aspects of nature conservation. The publications that specifically address the conflict between use and protection of nature are particularly interesting in this context. Two such examples are worthy of note here: Several works by miljøjournalist Kjeld Hansen, e. g. *Det tabte land* (2008) and *Det store svigt* (2017) have been supported by AVJCF / AVJNF. Hansen specifically addresses the historical conflict between agriculture and nature interests in Denmark and is highly critical of the agricultural lobby. While this renders Hansen's works controversial, they remain important in that they inform, and are highly cited by, supporters of nature conservation in the public debate.

Another interesting example is AVJNF's support of Rune Engelbreth Larsen's books, *Vildere Vidder i Dansk Natur* (2017) and *Danmarks Genforvildede Natur* (2020). These books promote the concept of "rewilding", i. e., the introduction of animals to fill grazing niches previously occupied in ecosystems but now empty due to human activities. The idea with rewilding is to restore ecosystem *processes* rather than the reintroduction of the specific animals that were historically present. Rewilding is a controversial topic – also within the scientific community – not least of which as it requires a conscious human decision regarding the type of ecosystem to be attempted restored. Given that nature conservation areas are relatively small in Denmark, the introduction of large grazers requires the placement of fences around the areas designated for the introductions.

Engelbreth Larsen and his books have been highly influential in the development of the Government's plans to establish fenced national nature parks. As noted above, the decision to create these fenced parks and introduce large grazers has generated considerable controversy. Engelbreth Larsen's books, of course, represent his own convictions and not necessarily the position of AVJNF's Board. Indeed, several board members privately admit to having doubts regarding the fencing of nature conservation areas. Nevertheless, in sponsoring these books, AVJNF has had enormous impact on current Danish nature conservation policy. The release of large grazers in nature national parks represents a large-scale experiment in nature conservation. As time goes on, changes in the plans may be introduced or the experiment dropped altogether but such experiments are needed as society continues to develop its relationship to the non-human components of the ecosystems we humans inhabit.

F. Wild experiments

In the case of national nature parks, it was the Danish state initiating the experiment. This represents a break with historical tradition, as it is seldom possible in a politically controlled system to invest in the unknown. Perhaps the state can afford to do so in this case, as the experiment does not represent substantial economic investment. The land upon which national nature parks will be established is already owned by the state. Fencing represents the largest investment, although income is lost in not

retaining the state-owned forests as production units. Foundations such as AVJCF and AVJNF are in a much different position than politicians and public authorities in that they can respond quickly and can "afford" to take chances by investing in the unknown. Over the past three decades, Aage V. Jensen's legacy has been a prime initiator of "experiments" in Danish nature conservation.

The restoration of the marine lagoon at Gyldensteen Strand represents an on-going experiment that can potentially have enormous consequences for nature in the marine realm around Denmark. Over the past two centuries, on the order of a third (author's own estimate) of the coastal marine water with a depth of 1 m or less, have been filled – usually to create agricultural land. Shallow marine waters are highly productive as light can penetrate to the bottom and allow plant growth. Such regions are, therefore, important sources of food for both birds and marine organisms. Changing regulation and market characteristics in the agricultural sector have now rendered farming on many of these filled land areas uneconomical. Furthermore, sea level rise associated with climate change is increasing flooding of these areas, and it is becoming increasingly expensive to ensure that they remain dry. Large tracts of land along the coast of Denmark are therefore candidates to become shallow marine environments again. The knowledge gained through AVJNF's experiment in re-establishing nature in a coastal lagoon can potentially inform the process of returning these filled land areas to the marine organisms that originally called them home.

The greatest threat to biodiversity and nature, globally and in Denmark, is a lack of space where it can develop according to its own premises. When AVJCF first began its activities in Denmark, there were areas with robust, diverse ecosystems that could be purchased with the intent of protecting nature, and thereby ensuring that they would remain areas where nature reigns. Few, if any, such areas are found today. Continuing to improving conditions for nature in Denmark therefore necessitates a focus on restoring robust ecosystems on land used for other purposes. As noted above, over 60 % of the Danish land area is currently used for agriculture. For a number of reasons, it seems unlikely that the percentage of agricultural land will remain this high over the coming decades. Already, the organic-rich soils found in drained agricultural lands are being taken out of production in an effort to decrease greenhouse gas emissions generated from the agricultural sector. Thus, land currently or

previously used for farming seems a likely candidate for providing new nature conservation areas.

In 2020, AVJNF purchased Søholt Storskov, an area comprised of both forest and agricultural land. One of the goals in obtaining this area is to return the agricultural land to nature. Experience from other countries has demonstrated that restoring diverse and robust ecosystems on agricultural land requires more than simply leaving the tractor in the garage. Developing best practice for returning agricultural land to nature seems likely to become increasingly important for improving conditions for nature in Denmark. A goal with the purchase of Søholt Storskov is therefore to gain experience in converting agricultural lands to nature conservation. Student projects[23] have already been carried identifying different options / strategies for restoring nature on Søholt's Storskov's agricultural land, and the experiments will continue in coming years.

AVJNF can also afford to be risk embracing in relation to the research it supports. In recent years, several "citizen science" projects, where the non-scientist public is mobilized to collect data that are later analyzed by researchers, have won the favor of the foundation. Such projects serve two purposes. New knowledge relevant for nature conservation is gained and, at the same time, the public becomes engaged in the protection of nature. For many years, AVJCF and AVJNF supported the Danish Ornithological Society in the analysis and publication of their members' observations. In a recent collaboration between the Danish Society for Nature Conservation *(Danmarks Naturfredningsforening)*, and scientists at the University of Copenhagen, the public was asked via a smartphone app to record the time and date of observations of 10 different and readily identifiable organisms.

The organisms chosen for inclusion are typical of specific different nature conditions in Denmark. Over a million observations[24] have been recorded. These are being used to map the state of nature in the country as a whole. In another citizen science project supported by AVJNF, volunteers were asked to mount insect nets on the roofs of their cars and drive specific routes at different times of the year. The project attracted

23 https://www.avjf.dk/rapporter/soeholt-storskov/konvertering-af-landbrugsjord-til-overdrevsnatur-paa-soeholt-storskov/

24 https://biodiversitet.nu/

enormous public attention and raised awareness about the state of insect populations. Analysis of the data collected will take years but already a drastic decline in insect abundance in urban areas is clear. In recent years, routine monitoring of nature by the environmental authorities has been reduced and, therefore, initiatives such as these are extremely valuable in recording the development of nature in Denmark.

In addition to sponsoring citizen science monitoring projects, AVJNF also supports basic research, where new ideas and hypotheses are tested. Usually, the research supported does not focus on gaining a better understanding of the basis biology of individual organisms. Instead, research is prioritized that can better inform the management of AVJNF's own properties or nature conservation initiatives at the national or international level. The environmental authorities in Denmark (Nature Agency) are often consulted in the identification of research initiatives for support. This facilitates rapid uptake of the new knowledge generated by AVJNF's investments in state-sponsored nature conservation activities. Very limited funds are available within the Environmental Ministry for the developing new initiatives or methods. AVJNF therefore often finds itself de facto doing research and development relevant to nature conservation that, in other countries, is state supported.

Thus, in recent years AVJNF has provided financial support that has enabled the Nature Agency to participate in EU sponsored nature conservation activities in Denmark. Until recently, Denmark did not have a national database describing the distribution of its flora and fauna. Together with another foundation (15. Juni Fond), AVJNF has sponsored the development of such a database.[25] AVJNF has also made considerable investment over the past few years in developing a reference library for the molecular genetic sequences of Danish flora and fauna (DNAmark). Ultimately, it is expected that genetic methods will enable more complete and less labor-intensive nature monitoring programs to be established, but such programs require considerable preparatory work to develop standard collection methods and libraries. Without investments of the type made here by AVJNF, Denmark will not be able to exploit new molecular genetic methodologies in nature management.

25 https://arter.dk/

G. Conclusions

As a small country with an historical tradition of land use for farming, Denmark's nature has been under enormous pressure for a very long time. In the early years of its operation, AVJCF's most important contribution to the protection of nature in Denmark was thus its land purchases, as these protected relatively large tracts of land from agricultural and other uses, and provided areas where nature could develop on its own premises. As time has passed, however, a more general recognition of the importance of nature conservation has gradually developed in Denmark. This evolution in thinking was in part driven by external pressure, as both OECD and EU have been critical of Denmark's nature conservation initiatives. Despite increasing interest in nature conservation, the country still ranks poorly in terms of the state of its nature compared to other EU countries.[26] However, the foundations' activities have also played a role in catalyzing this change of thinking.

Today, the purchase of areas with the aim of nature protection is a less important contribution to nature conservation than it was in the 1980s. This is partly due to the fact that there is much less area with nature worthy of protection that is not already under some form of protection and partly because there is now more public and political awareness about the importance of maintaining robust and resilient ecosystems than it was the case earlier. In addition, there are other actors, i. e. The Danish Nature Fund, that are also prepared to purchase land for nature conservation. Finally, legislation (in part catalyzed by AVJCF's actions) has changed so that using land for nature conservation is now legally as important as using the land for agriculture. The most important role that AVJCF, via AVJNF, plays for nature conservation in Denmark today is as an innovator where new ideas and concepts, for example in nature restoration, can be tested. Sometimes, nature restoration requires land purchase so that tool remains in AVJNF's toolkit but no longer a goal in itself to own property.

Thanks to AVJCF's initiatives, Aage V. Jensen is a name that everyone in Denmark interested in nature still knows and respects. Today,

26 https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/messages-from-eu-member-state

AVJNF with its experience and collected knowledge supports nature conservation much more broadly than on its own properties. That message came clearly home to the author when, on a recent public tour to the site of the coming national nature park in Gribskov, a member of the party asked the guide a question about how the release of moose would be managed. Her answer was simple and clear: "We're not worried. We have good contact to the people in Lille Vildmose who have done this, and they are helping us" (author's translation). Could there be a better testament to the importance of AVJCF's contribution to the protection and preservation of nature in Denmark?

II. Aage V. Jensen Charity Foundation and Greenland

Klaus Nygaard

Aage V. Jensen Charity Foundation (AVJCF) has provided the largest sum of private donations ever, contributing to the conservation of nature and development of society in Greenland. As a witness to the entire period of the foundation's activities here, I will try to highlight some of the most important elements of this support seen from a Greenlandic perspective.

The support has come in many forms. Buildings, facilities, instruments, scientific knowledge, local knowledge, competence building, education books, dissemination of knowledge, artistic decoration and UNESCO Heritage site applications are some of the instruments, that have been used in the pursuit of the goal of protecting nature. The guiding principle with this support has been that it should be carried out in close collaboration with the Greenlandic society always. A collaboration where the needs and wishes of the Greenlandic people are respected.

From a Greenlandic perspective, the major milestone in the Foundation's activities was the support for a building to house the Greenland Institute of Natural Resources (GINR)[27]. In 1989, the Greenland Home

27 https://natur.gl/

Rule government took over the responsibility for Greenland Fisheries Research Institute (GFRI) from the Danish State, and in 1992, it was decided to move the institution and its 30 employees from Denmark to Greenland. The decision was met with concern, as Greenland had not previously built up a scientific institution. There was no scientific infrastructure and it was generally feared, that it would be impossible to attract scientists to permanent positions. While GFRI took responsibility for the monitoring of fish, shrimp and to some extent large whales, there was no institution taking responsibility for all other animals and the nature as a whole.

Therefore, AVJCF undertook a study to determine what would be needed to establish a "Nature Institute" to cover birds, marine mammals, terrestrial mammals, vegetation, etc. This resulted in a proposal for a building that could house approximately 15 employees. However, in order to be able to obtain critical scientific mass, it was a wish from Greenland that the new institute should be merged with Greenland Fisheries Research Institute. This meant that there was a need for a much larger building (to accommodate approx. 50 employees), which AVJCF then provided. The building was inaugurated in 1998 and marked the beginning of a new era for scientific research and management of nature in Greenland.

AVJCF also recognised the need for facilities to house guest researchers to support the scientific community and to expand international collaboration between the scientific community in Greenland and elsewhere. Already in 2000, an Annex with apartments and guest rooms located adjacent to the main building was inaugurated. Housing in Greenland constitutes a major problem and costs are high. With the new building, the Institute got a crucial asset for development.

The main focus for GINR initially was applied science directed towards fisheries and wildlife management but, around 2000, a desire for a more holistic approach towards ecosystems and climate change emerged. A 5-year professorship provided for by AVJCF served as a strong catalyst for the developing of these new interests. The professorship was later followed by support for other measures, i. e. Ph.D. scholarships and Post-docs, aimed at expanding the scientific competences of the Institute. With the international boom of interest for climate change in the Arctic, the main building for GINR soon became too small and an extension was provided in 2011 by AVJCF. This resulted in the embedding of Greenland Climate Research Center in GINR. Thus, today GINR

numbers 70 employees of which 45 are scientists. The Institute has constantly improved in all of the metrics normally used to evaluate scientific institutions. Currently, GINR has a record high scientific production[28] and professional level of its staff. Good working conditions and State-of-the-Art infrastructure contribute greatly to the Institute's ability to attract and retain qualified employees.

Greenland is very large and conditions in the desolate far north differ widely from the situation in the populated southwest. A Danish field station was set up in Zackenberg[29] in Northeast Greenland, as the basis for ecosystem and climate research. Later, a primitive marine station followed nearby in Daneborg[30]. AVJCF recognized the importance of the work being done, and through several donations, the stations were expanded and modernized, to form the basis for a long-term ecosystem monitoring program. The importance of this program was evident with the dramatic climate change occurring in the High Arctic, and it soon became an example to follow by other Arctic nations, setting up similar programs.

The research in Northeast Greenland was largely carried out by Danish and foreign researchers, and AVJCF saw the need for a closer connection to the Greenland research being done by GINR. Through a donation for a new field station in Kobbefjord[31] near Nuuk with research boats and other equipment, it became possible to expand the ecosystem monitoring to cover a Low Arctic site as well. The stations were then merged into a common program, "Greenland Ecosystem Monitoring Program" with a joint Danish-Greenlandic steering group. This program supports a much stronger collaboration and is now an internationally recognized program of highest importance for the understanding of effects of climate change in the Arctic and for global processes[32].

Another track of support was initiated with the establishment of "Pikialaarfik"[33]. This is a new large building for university education in

28 https://natur.gl/research/scientific-articles/?lang=en
29 https://g-e-m.dk/gem-localities/zackenberg
30 wwwzackenbergdk/news/newsarchivezac/zackenbergresearchstationatdaneborg
31 https://natur.gl/arter/feltstationen-i-kobbefjorden/?lang=en
32 https://g-e-m.dk/
33 https://natur.gl/wp-content/uploads/2022/08/Uddannelsesbygningen_V1.6_bleed_A4_Eng-ellm.pdf

natural science and for health research, associated with both GINR and the Greenland University. With laboratories for students, an auditorium, rooms for teaching and office space for 24 persons featuring modern equipment for audiovisual communication, the building constitutes a perfect meeting place for interdisciplinary research and education. Together with a large grant for developing natural science at the university, this has sparked new collaboration between the university and GINR and has created synergies that benefit both partners.

Most recently, the building of a new Greenlandic research vessel was given important support. Public funding did not extend to the desired ship but with funding from AVJCF, important and necessary features for studying marine nature were secured. The result is a state-of-the-art Arctic research vessel named Tarajoq[34], that will be able to serve Greenland and the international scientific community for the next 40 to 50 years, ensuring vital research and monitoring data concerning ocean climate and fisheries resources. Resources that constitute the backbone of Greenland's economy.

The AVJCF commitment to Greenland has been characterized by a continuity unsurpassed by other donors. The relationship between the Foundation and Greenland has not been one of "went there, saw the place, ticked it off". With a visionary approach and great responsiveness, a base for scientific research on Greenlandic terms has been built thanks to the Foundation. The very high quality of products and follow-up through decades ensures that the large investments made will yield returns to society and nature for many years to come. The importance of the support for developing both infrastructure and scientific competences cannot be overstated. This support has been crucial for the remarkable development in scientific research concerning Greenlandic nature, which again forms the basis for modern sustainable management of the living resources, biodiversity and nature conservation in Greenland.

Nature and society are closely linked in Greenland. Safeguarding nature is vital to the wellbeing of Greenlandic citizens, to culture and to societal development. Securing sustainable use of ecosystem services and a knowledge-based development of tourism, national parks etc. constitute cornerstones for a future Greenland that is a self-sustaining society.

34 https://natur.gl/facilities/skibe/new-ship/?lang=en

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