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**The weekend huts of the Grande Cariçaie: harmful to the  
ecosystem, or on the contrary, a benefit for its  
preservation?**

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# 1 Introduction

It was summer 2018; my family and I were promenading in the nature reserve Grève de la Motte, next to Portalban, along the shore of Lake Neuchâtel. We were walking on a gravel road bordered by small, mostly wooden chalets. As we were passing next to one of them, we saw a sign: “Cold beer tomorrow”. We thought it was funny, as the owner was obviously making fun of the people passing by. On our way back, the owners of this hut, an old Irish couple, stopped us; my father was wearing a shirt in the colors of the men’s favorite football team and he insisted on giving him a beer. The joke became reality. We started a conversation and at one point, the woman went inside and came back with a newspaper article. They explained that the further existence of their chalet and many others in this area was in jeopardy. Since the nature reserve had been established, the community of the chalet owners was fighting for keeping them in place. At this point, I became interested in the subject and started to ask questions on the context and the reasons for this conflict. I realized that each of the opponents had his own perception of what would be the best solution for the area. On the one hand, the chalet owners defend their beloved secondary residences claiming that their actions help to protect the ecosystem around them. On the other hand, the cantons, supported by pro-nature organizations declare that the most desirable solution would be the total removal of the habitations.

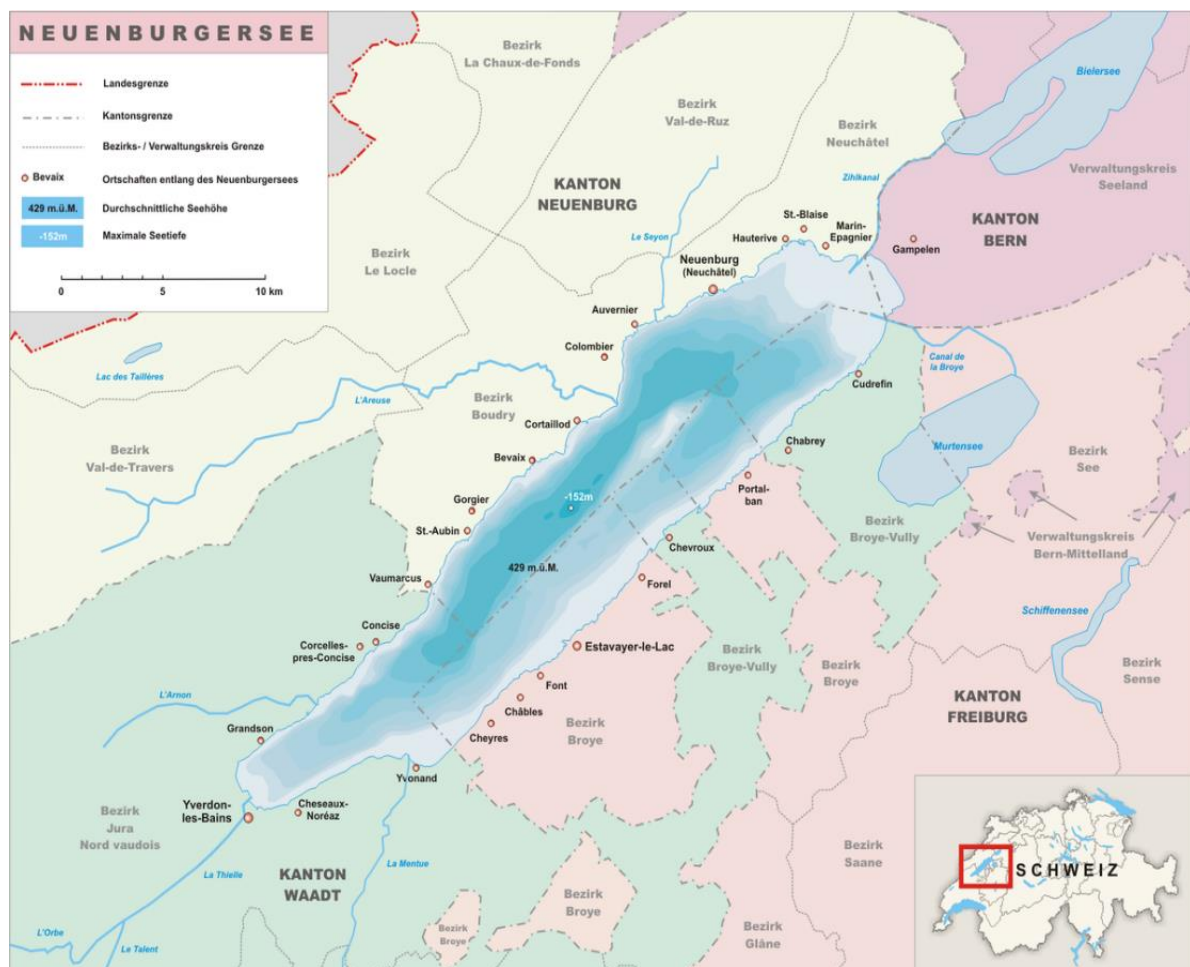
This leads to the following question: Are the weekend huts of the Grande Cariçaie harmful to the ecosystem, or on the contrary, a benefit for its conservation?

## 2 Historical and Geographical Context

Over the last 200 years, the area that is today called the nature reserve Grande Cariçaie has gone through some massive changes. Before the 19th century, the whole region between the lake of Morat, Bienne and Neuchâtel was a marsh called Grand-Marais and thus unsuitable for agricultural use. As more agricultural land was needed, it was decided to lower the level of the lakes, thereby drying up the marshes. This first correction of the Jura waters happened between 1868 and 1891. As a result, the cultivable surface increased, although the area was still subject to flooding. As the newly available surfaces were used for agriculture, the lakes and their shores became gradually more interesting for recreational purposes. This led to the building of the first chalets in the early 1930s. Nowadays, there is a total number of 184 huts in the area. After World War II, tourism increased in the area and campgrounds, ports and more secondary residences were built. As the flooding got worse, it was decided to attempt a second correction, which took place between 1962 and 1973. The flooding stopped and the land got drier, which provoked the progress of the forest towards the shore.

A few years later, the plan to construct a freeway, which would be crossing the sector, made people react. The association WWF Switzerland and LSPN (known today as Pro Natura) collected 560,000 signatures and 4 million CHF to protect the Grande Cariçaie. This mobilization was a success and the freeway was built somewhere else. In 1998, the first

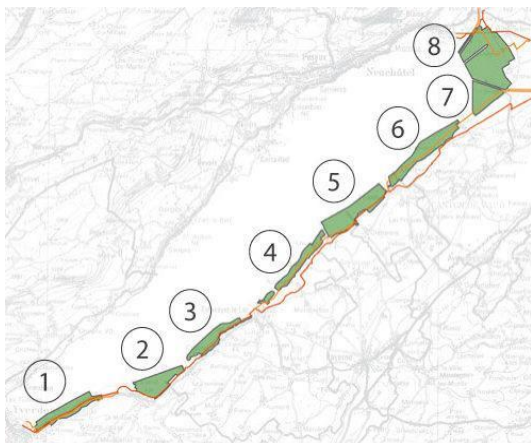
intention to declare the area a nature reserve was published. This project was not welcomed by everybody and the opponents organized themselves in an association called *Association des riverains de la rive sud du lac de Neuchâtel* (ARSUD). This association supports the case of the residents and the users of the lake and its surroundings. The two sides negotiated and between 2001 and 2002, eight nature reserves were created on the South-Eastern shores of Lake Neuchâtel, which also included the region of the chalet owners.



Lake Neuchâtel and its cantons<sup>1</sup>

This map shows the different administrative districts around the lake. When comparing it with the map on the next page presenting the eight parts of the nature reserve, one can see that they are spread over a long strip of the shore. Furthermore, the reserves in which the chalets are located belong to different administrative districts, as the chart on the following page illustrates. This complicates the decisions that are taken about the area, as there is no centralized power.

<sup>1</sup>[https://upload.wikimedia.org/wikipedia/commons/thumb/a/a6/Karte\\_Neuenburgersee.png/1199px-Karte\\_Neuenburgersee.png](https://upload.wikimedia.org/wikipedia/commons/thumb/a/a6/Karte_Neuenburgersee.png/1199px-Karte_Neuenburgersee.png)



Map of the nature reserves<sup>2</sup>

Number of huts per administrative district

	Vaud	Fribourg
Total huts	67	117

Nature reserve	Administrative district	Name
1	VD	Grève de Cheseaux
2	VD	Baie d'Yvonnand
3	FR	Cheyres
4	FR	Grèves de la Corbière et de Chevroux
5	VD/FR	Grèves d'Ostende et de Chevroux
6	FR	Grèves de la Motte
7	VD	Cudrefin
8	NE/BE	Fanel

(VD: Vaud; FR: Fribourg; NE: Neuchâtel; BE: Berne)

### 3 The importance of the Nature Reserve

The reserve of the Grande Cariçaie was named after a sedge called *carex elata*, which is common in the area. The reserve is spread out over 40 km of the South-Eastern shore of Lake Neuchâtel and covers a surface area of around 3'000 hectares. It is a very special reserve, as it has a vast biodiversity and is “home to a quarter of the Swiss flora and fauna species”<sup>3</sup>. The following numbers can underline this aspect and help to understand it better: At least 10,000 different animal species and around 1,000 plants are present in the Grande Cariçaie, including

<sup>2</sup> <https://grande-caricaie.ch/fr/visiter/carte-des-reserves/>

<sup>3</sup> Pro Natura, “Pro Natura Centre de Champ-Pittet” <https://www.pronatura-champ-pittet.ch/fr/reserve-naturelle>

some endangered ones. For the vertebrate animals, these include 36 species of fish, 16 species of amphibians of which 13 are endangered, 12 species of reptiles and 53 of the 83 Swiss mammal species.

This nature reserve is not only of national importance for the endemic fauna. An even greater importance lays on the international level, as it is the resting and nesting place for over a million migratory birds every year in spring and autumn. For these birds, it is absolutely mandatory that this area on the South-Eastern shore of Lake Neuchâtel remains protected. This can be illustrated by two examples: the wood sandpiper (*Tringa glareola*) and the purple heron (*Ardea purpurea*). The wood sandpiper appreciates the wet sandbanks; it overwinters in Africa, travels over Europe and the Grande Caricaie and spends the summer in Scandinavia. For this species, the reserve is a feeding spot to regain some strength for their long journey. Without the reserve, some wood sandpipers might still be able to reach their destination, even if the conditions would be less optimal due to food reduction, but the majority of the animals would be too weak to continue their exhausting journey and would never arrive. For the purple heron, the reserve has an even more significant importance, as it nests there. The Grande Caricaie is their only breeding place in Switzerland, which makes its preservation of utmost importance. The purple heron would lose a reproduction zone which would affect the species on a much larger scale. The impact due to the loss of the reserve would be for either of these species very different, but with huge consequences on their population. In summary, the large number of species living in and migrating through the reserve, and its significance for each of them justifies a rigorous protection.



Wood sandpiper<sup>4</sup>



Purple heron<sup>5</sup>

The importance of the nature reserve and its preservation has been acknowledged on several levels. It was recognized by the Ramsar Convention in 1990, which “is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.”<sup>6</sup> Moreover, it

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<sup>4</sup> <https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&ved=2ahUKEwibkcDc8fPkAhXMKVAKHRL3A7UQjRx6BAGBEAQ&url=https%3A%2F%2Fwww.flickr.com%2Fphotos%2F34489588%40N08%2F4766796283%2F&psig=AOvVaw282NJY46GZ>

<sup>5</sup> <http://data.abuledu.org/wp/?LOM=24783>

<sup>6</sup> The Ramsar Convention secretariat. <https://www.ramsar.org/>

is an Emerald site, which is an ecological network that includes areas with a big interest of conservation. It was established following the Bern Convention from 1979, which involved “all the European Union member States, some non-Community States and a number of African State.”<sup>7</sup> This convention is related to the conservation of natural habitats. On the national scale, the Grande Cariçaie has been recorded in the federal inventory of landscapes, sites and monuments since 1970. This inventory protects the most valuable Swiss landscapes.

All the above mentioned points underline the significance of this reserve. In relation to the chalets, it complicates their situation, as they were built in a zone that is now considered to be of highest ecological interest. Each decision in this conflict is therefore important and has an impact on the national and to some extent even on the international level.

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<sup>7</sup> Council of Europe. <https://www.coe.int/en/web/bern-convention/emerald-network>

## 4 Development

### 4.1 Legal actions taken since the chalets' construction

When the huts were built, between 1920 and 1962, no one cared about the area. It was not an attractive site, so the administrative districts Vaud and Fribourg allowed people to build their huts. The owners of the huts on the shore of Lake Neuchâtel only had temporary contracts, which gave them the right to use the ground that belonged to the different administrative districts, Fribourg and Vaud. No one at this time was aware of the ecological value of the wetlands. The awareness came slowly by 1990 and increased over the years until it was decided, between 2001 and 2002 that a nature reserve was to be created, which is since then known as the Grande Cariçaie. Around the same time, between 1995 and 2008, the rights of the owners expired. The contracts, which the first owners had signed years ago, had a clause according to which they had to “vacate and clean the ground to leave it free of any construction by the expiration of the said contract”<sup>8</sup>. Due to the change in people’s perception of the area, they were not able to extend the contract, and this was the first time it was decided that the huts had to be demolished. The owners did not have the law on their side, but they decided not to leave without resistance. This was the beginning of a long legal conflict. The owners had already organized themselves and had founded an association called *Association des riverains de la rive sud du lac de Neuchâtel* (ARSUD) in 1992. Thanks to this, they were able to coordinate their actions.

Their first small victory was in 2007 with the *contrat nature*: “[With] the signature of a *contrat nature* with the state of Fribourg every current owner of a chalet will be able to continue to occupy the place for their whole life and after him his registered partner and direct descendants”<sup>9</sup>. However, as the land on which the constructions stand belongs to the cantons, the contracts had to be confirmed every five years. Additionally, several privileges had to be renounced: the owners could no longer sell or rent their buildings, and as a consequence the huts lost all their monetary value. This compromise was decided, because the *Conseil d’État* thought that, in this way, the chalets would progressively disappear after the death of the last owner, or the destruction of the chalets over time. This was not the most effective solution for the cantons that wanted to remove them as fast as possible, but, as shown by the following cases, it has already worked three times. In 2012 and 2016, two huts were demolished by the authorities after the death of the owner and at the end of 2017, a hut, which had partly been destroyed by a fire in 2003, was dismantled, as it could not be renovated. This new contract shows that the owners had to make many compromises.

Even though the *contrat nature* seemed a good solution for both sides, several associations for nature preservation were still protesting against it: The Swiss Association for the protection of birds, Pro Natura, Pro Natura Fribourg, WWF Switzerland and WWF

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<sup>8</sup> Radice, Jean-Louis. “Rapport de la majorité de la commission des pétitions”, p.3

<sup>9</sup> Tribunal Fédéral. [https://www.bger.ch/ext/eurospider/live/fr/php/aza/http/index.php?highlight\\_docid=atf%3A%2F%2F135-II-328%3Ade&lang=fr&type=show\\_document&zoom=NO&](https://www.bger.ch/ext/eurospider/live/fr/php/aza/http/index.php?highlight_docid=atf%3A%2F%2F135-II-328%3Ade&lang=fr&type=show_document&zoom=NO&)



Fribourg. On January 24, 2008, they appealed to the Cantonal Court to annul the decision made by the *Conseil d'État*. This court declared that it could not be changed and that the appeal could not be received. Nevertheless, the associations did not give up and applied to the Federal Court, which accepted the appeal and returned the case to the Cantonal Court. The final verdict was announced on July 16, 2009, indicated that the cantonal decision from 2007 was against Federal Law, and had to be revoked. The reasoning behind this ruling is that decisions about the use of public land need to be made by public vote with the possibility to file a counter project. As this procedure had not been followed, the last contracts were cancelled in 2010.

Because of the federal ruling, the chalet owners had again lost the legal base for the existence of the huts and the authorities of Vaud and Fribourg were questioning if these were indeed compatible with existing federal restrictions to protect landscape and nature. In 2012, the cantonal authorities forwarded the question to the *Commission fédérale pour la protection de la nature et du paysage* (CFNP) and asked them to evaluate the situation. Their conclusion was that the chalets were an artificial barrier, hindering the natural order. Therefore, they reinforced the viewpoint according to which the huts had to vanish. As a result, by July 2017, the *Conseil d'État* of Fribourg and Vaud both officially declared their final decision: the huts had to be demolished.

Following this declaration, there was a vivid opposition. The *Association des riverains de la rive sud du lac de Neuchâtel* (ARSUD) took the lead and decided to commission an international consulting agency (PÖYRY) to evaluate the decision of the CFNP. The consulting agency looked at the document in detail and highlighted several weak spots and omissions. For example, the declaration of the lake being autoregulated, which is only partially true, as will be explained further down the text and the unmentioned *contrat nature*, which was a momentary solution for the problem. This critical analysis was finished by May 2018. Soon thereafter, in October 2018, two petitions demanding to reinstate the *contrat nature* and prevent the demolition of the chalets were given to the authorities in Fribourg and Lausanne. In Lausanne, there was a total number of 10,518 signatures whereas in Fribourg, there were 11,342. Both petitions were initiated by the organization ARSUD, but the surprisingly high number of signatures shows that not only the hut owners participated, but many others too. Over 20,000 people felt that it was relevant to resist and protest against the decisions that had been made. This emphasizes that the owners have a considerable amount of public support. In June 2019, the canton of Vaud examined the petition. The final vote of the eleven members within the *Commission thématique des pétitions* was 7 against the huts, 3 for and 1 abstention. The consequences of this vote were that, again, the chalets should disappear. This outcome was unexpected for the chalet owners as they thought that they were able to convince the authorities. In the canton of Fribourg, the petition has not been examined yet.

Nevertheless, both administrative districts are currently coordinating a procedure to find a durable solution for the situation of the chalets. The canton of Fribourg is right now planning to change their *Plan d'affectation cantonal* (cantonal land use plan, PAC), which is a time-consuming procedure (five to ten years), as they need to remove the chalets individually from the current official documents before sending any demolition orders to the owners. The canton of Vaud chose a faster solution, as they will skip the step of changing their PAC and directly send the demolition orders.

In the near future, ARSUD is going to present their point of view to the different political parties and present their arguments, hoping that some of the political representatives will support the case of the owners.

Over the years, the decisions did not have any lasting effect: even though it was decided at several points to demolish the chalets, compromises were found to keep them in place. The chalet owners seem to have always found enough support and new arguments to avoid the destruction.

## 4.2 Argumentation of the Chalet Owners

Legally, the huts were supposed to have been demolished a long time ago, but different aspects have made the final act of the actual demolition never happen and only present on paper for the moment.

First of all, the huts are only secondary residences, which make them less disturbing for the environment, as they are not used very often and the majority of them is completely closed during winter. Most of them are basic constructions, built on wood stilts to protect them against flooding, even though some of them have become more imposing. In addition to this, they were constructed during a time with fewer regulations, which makes stricter rules more difficult to apply retroactively. For example, the change of people's point of view regarding wetlands, which was the pivotal point that started the conflict, only appeared after the construction of the huts. If the ecological perception would not have changed, and this area would have stayed an ordinary more or less abandoned region, there probably would not have been any problem to extend the contracts. Moreover, and these are the arguments of the residents, the huts and the hut owners have coexisted with nature for nearly a century, and it does not seem to have had a bad influence on the environment around them. The owners even declare they help protecting the ecosystem, for example by building and maintaining rip-raps, a shoreline stabilization made of rocks which protects the shores from erosion and keeps the lake from silting up. They further claim that, as the area needs human intervention to keep the wetland's fragile ecosystem stable, their monetary and physical contributions are required and beneficial to reduce the costs.

According to François Kistler<sup>10</sup>, the current president of ARSUD (the association defending the position of the chalet owners), the decision to demolish the chalets was motivated by the fact that they were the easiest target. They are a relatively small number, which makes it more difficult for them to organize an opposition. Moreover, he considers that although their huts and the activities around them have an impact on the environment, it is not significant enough to cause any measurable problems. In addition to this, he states that the surface used by the chalets is rather insignificant compared to the total surface of the reserve.

Furthermore, the owners have emotional bonds with their huts. The huts are not sterile buildings that all look the same. Each of them is different and tells the story of a specific family. François Kistler, for example, is quite affected by the whole situation, even though he said about himself that he does not get attached to objects easily, the chalet has become very

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<sup>10</sup> Kistler, François. Interview by author

important for him. He has been going there during the summer holidays for more than thirty years and loves the area. He is spending his holidays in the Grande Cariçaie rather than taking the plane to some exotic destination, which is a good ecological action on a more global scale. He has built up a special relationship with the place and the chalet. The thought of this house being dismantled is afflicting him. The region and the huts are for most people a little paradise where they can escape the cities' turbulences and relax. This is also one of the aspects that helped the owners to receive public support. People's fear of the closure or the restriction of access to the area made them take the owner's side. Nowadays, many people in our society have a strong desire to be in touch with nature through different activities such as hiking, cycling and camping. To possess a secondary residence somewhere away from the city is also part of this mentality. This is probably the reason why other people, which are not directly impacted by this problem, felt concerned by the owner's situation and tried to support them.



Hut in the Grande Cariçaie, January 20th 2019, by Jona Bauer  
This photo illustrates the idyllic aspect of the area.

## 4.3 Scientific Point of View

When it comes to the scientific evaluation of the situation, the cantons rely on organizations such as the *Association de la Grande Cariçaie*, which is responsible for the conservation of the reserve. Their role is to protect the reserve, so that it remains intact. As mentioned in the introduction, this marsh was artificially created around 150 years ago and therefore has not reached a balance yet: the association faces a number of problems, as the marsh is slowly reducing and evolving towards becoming a forest. Different techniques are used to counter this phenomenon. Human intervention is needed, because mankind has made through its corrections, the Grand-Marais disappear. The small part left, the Grande Cariçaie, is now a priority area that needs protection, as it can be considered as a miniature version of the original Grand-Marais, thus preserving a small population of all species that were present before. The protectors of the environment conserve this small part like a modern Noah's Ark, so that one day they might be able to restore the ecosystem on a much larger scale. Through a continuous effort, they are able to keep the balance artificially, which will be explained in detail in section 4.3.2.

In a personal interview, Michel Baudraz<sup>11</sup>, the director of the *Association de la Grande Cariçaie* explained the point of view of the nature conservationists. As director of the executive board, he has no direct contact with the hut owners, but is confronted with subjects concerning them very often. He made clear that the association is not the one telling the chalet owners to leave, as it does not take any legal action itself, but only answers to specific scientific questions as asked by the authorities. By doing so, he represents the opposition against the chalets owners in this conflict. The association is in charge of controlling the area and to make sure the rules are followed by the owners. In addition, they are asked to write scientific evaluations for the different judicial bodies.

Although M. Baudraz understands the different arguments of the chalet owners, his scientific point of view can prove many of them wrong. His arguments are detailed in the next paragraphs.

### 4.3.1 Erosion

Erosion is one of the main problems the reserve has been facing since its appearance after the corrections of the Jura waters in 1868 and 1962. The whole area is a sand bank, as it was part of the lake before. This soft ground is prone to wear away easily when it is hit by waves. The solution that was adopted by the hut owners affected by the issue was to build rip-raps. The construction of rip-raps is working successfully in protecting the shores, but as described in the next paragraph, their presence has negative consequences on the lake area in front of them. From a scientific point of view they are therefore not the optimal solution in the kind of environment that constitutes the Grande Cariçaie.

When the waves hit the stone blocks of the rip-raps, they are stopped, but their destroying energy is not completely gone. Some energy gets pushed back and the force of the

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<sup>11</sup> Baudraz, Michel. Interview by author

returning waves prevents reed and other aquatic plants from growing. To avoid this and promote a natural self-regulation, the *Association de la Grande Cariçaie* (association for nature conservation) adopted a different technique, which is harmless to the environment. They plant a wood palisade in the water within a short distance (less than 100m) from the shore, which stops the waves and their violent energy, therefore allowing the reed to take root and grow, as can be seen in the photo below. Around 25 years later, when the palisade is rotten and falls apart, the reed is strong enough to resist the waves and the erosion is stopped naturally and durably. In other words, the shore protects itself without further human influence.



Wood palisade with reed, January 20th 2019, by Jona Bauer

#### 4.3.2 Human influence

The Grande Cariçaie, without any human influence would not be the reserve it is today. The first human interventions were the two corrections of the Jura waters. These lowered the lake level and during the second correction, a floodgate was built to regulate the fluctuations of the lake. As mentioned in the section above, it was only after this correction that the area appeared as it is known today. Due to these corrections, the area has lost its natural balance and needs regular human intervention to keep it stable. The major problems cited on the website *Association de la Grande Cariçaie* are the following<sup>12</sup>:

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<sup>12</sup> <https://grande-caricaie.ch/fr/travaux-dentretien/pourquoi-faire-des-travaux/>

- The waves and currents erode this large plant-covered sand strip and tend to regain the terrain that the lake lost with the first Correction of the Jura waters ;
- In the absence of important fluctuations of the lake level, the sand and gravel banks that appeared in the past along the shore have disappeared today, leading also to the disappearance of the species tied to them ;
- The bodies of water silt up as they are filled by organic material in decomposition and by the progression of the reed bed bordering their shores ;
- Subtracted to the flooding of the lake and subject to the summer heatwaves and to sedimentation (increase of the thickness of the ground by accumulation of organic material), more and more bushes grow on the marsh and the forest progresses ;
- Several little streams reaching the Grande Cariçaie bring alluviums and fertilizing elements from the agricultural zones upstream ;
- The white wood forests (consisting mainly of birches and beeches) evolve naturally towards a population of hardwoods (consisting mainly of oaks and maples) which leads to a reduction of ecological variety.

To counter these phenomena, different techniques were elaborated:

In the marsh, different methods are employed, depending on the area. In the pastures for example, reaping is used, whereas in later stages of forest development young trees and bushes need to be pulled out. To maintain the bodies of water open, the technique of scouring is utilized where special excavators remove sedimented organic material. In addition to this, the waterways are renatured to increase the flooded surfaces. In summary, these procedures cost a significant amount of money as they are complicated and time-consuming. In this point the chalets owners are right, human and financial input is indeed needed to allow the preservation of the nature reserve.

### 4.3.3 Surface

It is true that the surface used by the chalets is only a very small percentage of the total surface of the nature reserve. However, even such a small surface cannot be neglected. One must take into consideration, that the *Grand-Maraïs*, that was present before the first correction of the Jura waters had a surface area of around 400km<sup>2</sup>. This is a lot if you compare it to the 30km<sup>2</sup> left today. In addition, it is also one of the last Swiss lacustrine marshes, which increases its importance. Concomitantly, the presence of the chalets affects the area around them and causes disturbances which can affect the animals living in the reserve.

One of these animals is the purple heron that was used as an example to illustrate the nesting habits of migratory birds in the Grande Cariçaie. This bird is very sensitive and does not nest close to a habitation, so this species loses some of its habitat due to the presence of the chalets. This means that the actual impact of the chalets is bigger than their relative surface might tell. After taking into account all these aspects, one can ask, if the argument of a small surface is still valid. Michel Baudraz' answer is a clear "No". He considers that the surface of

the Grand-Marais has already been reduced so much, that even the relatively small area occupied by chalets is still too much of a burden for the survival of this ecosystem.

#### 4.3.4 Disturbances

It is true, that the nature reserve is subject to bigger disturbances from factors not related to chalets, such as for example the ports. Furthermore, the ideal situation from a biological point of view would be a shore bare from any man-made constructions or infrastructures. This is not a practicable solution, so when the nature reserves were established, a compromise had to be found. It was decided to divide the area in eight separate reserves, leaving so-called “windows” in between. These windows were not part of the protected area, which made it possible to build ports, beaches, houses and other infrastructures there. In doing so, some of the area was preserved, while the shore was still accessible. During this procedure the area in which the chalets were built became part of the protected sector. As the huts were constructed alongside the shore, the section of the shore occupied by them is quite long and could therefore not be included. Even though the huts do not disturb the reserve the most, the windows were already a compromise. The answer to the question if the disturbance of the chalets can be neglected is similar to the one regarding their surface. The reserve is already facing so many disturbances, that the chalets are just the one too much.

#### 4.3.5 Biodiversity

The huts and the green space surrounding them are bringing new species into the nature reserve, which at first sight seems to be a good thing. When one takes a closer look, one can recognize that these species are very common. They do not need special protection or a very specific environment. In the Grande Cariçaie, there is no environmental need for this kind of species. The area is in contrary very valuable for “priority species” which are endangered and exist often only in relatively small numbers. These species do indeed need a very specific environment, like the one present in the Grande Cariçaie. The problem is the following: the area used by the very common species is lost for the priority ones that depend on these surfaces for their survival.

Beside the common ones, exotic and invading species are brought in by the existence of the chalets and are starting to populate the area around them. These again take away space from native priority species.

To sum up, the chalets bring exotic and common species into the Grande Cariçaie, which compete for space with their native priority counterparts. This is contradicting the efforts to protect and support a balanced biodiversity within this reserve.

## 4.4 What is Natural and what is Biodiversity

The question we can ask ourselves after analyzing the different layers of the problematic around the chalets is the following: What is natural? What both parties have in common is the wish to leave space for nature and to protect it. Each side thinks that what they are doing is right and best.

Common opinion of what is natural does not necessarily reflect the reality. If for example we ask someone to describe us a natural garden, the answers will go from a well-maintained vegetable patch to a lawn with high grown grass. But is this really natural? What if we compare these representations to the “real” wild nature, for example in a forest. If no one touches it and nature is left on its own, leaves will fall to the ground in autumn, some trees will not resist the wind and fall too. Our perception when facing this is chaos, something without any order. If we now look back at our “natural” gardens, we see a major difference. We can compare this to pets. Everyone can assure you that a pet is a real animal, but we can also agree on the fact that a domestic animal will never act and behave the same way as an animal in the wilderness. In the same way, gardens reflect one of the aspects of nature, but never at its full potential.

Related to the chalets it means that the owners may think that their gardens or their actions are helping nature, while in reality their presence is hindering the evolution of a balanced ecosystem.

## 4.5 The Next Five Years, two Perspectives

I asked both of my interview partners what they thought would happen to the chalets in the next five years. On the one hand, Michel Baudraz<sup>13</sup>, member of the pro-nature organization *Association de la Grande Cariçaie* is rather certain that the chalets will disappear. He thinks that the pressure on the different authorities is so significant that the final decision will not be pushed away any longer. However, up to now, fearing public opinion, none of the responsible authorities has dared to make the final step. He thinks that our society has changed and that we now have a greater understanding of the importance of preserving natural habitats such as the Grande Cariçaie. Furthermore, he underlines that, on an economic level, the chalets are not profitable for the cantons. They have to evacuate their waste water, the huts count in the total number of secondary residences allowed in each municipality and the concession that is paid to the canton is very low. These two aspects consolidate his opinion according to which the chalets will not remain there for much longer.

On the other hand, François Kistler<sup>14</sup>, member of ARSUD, is less sure about the next years. He is uncertain about the final outcome, but he refuses to lose hope until it is definitely over. In any case, the organization and he himself will try to find every possible way to be able to stay, by either negotiating or taking other legal actions. Both parties have very contradictory

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<sup>13</sup> Baudraz, Michel. Interview by author

<sup>14</sup> Kistler, François. Interview by author



expectations for the next years and nothing is a hundred percent sure yet. One thing is clear; the final decision is coming closer.

#### 4.6 If the Chalets disappear<sup>15</sup>

If the authorities decided to remove the chalets, the following steps would be undertaken. First of all, the owners would be asked to evacuate the grounds and their chalets would be removed. Afterwards, the stone blocks (rip-raps) that were positioned right next to the shore would be either removed completely, or relocated further into the lake to perform a similar protection against erosion as the wood palisades. Finally, the landscape would be reconstructed as similar as possible to the way it was before the construction of the chalets. In this way the vegetation and animals could recolonize the space again. Nevertheless, the area would not be totally closed to public uses. The plan, as explained by Michel Baudraz, is to maintain public access to the area, by leaving some paths and constructing lookout towers. This procedure would concentrate the derangements on a small section within the area. Like this, the reserve would regain some of its territory and at the same time, the interested visitor could continue to enjoy spending time in the area and be able to observe and admire its natural beauty.

### 5 Conclusions

In my opinion, it is very challenging to find a satisfying solution. Both sides have strong arguments, but on different levels. While the organizations for nature conservation provide the cantons with very objective and scientific statements, the chalet owners can convince on a more emotional level. This makes it difficult to compare their arguments and take one side. Even Michel Baudraz, from the *Association de la Grande Cariçaie*, can understand the hut owners. He says: “I can totally understand them, if I had a chalet I would be with them. [...] it is beautiful what they have, they have paradises. [...] I would never leave and I would also fight to stay”<sup>16</sup>. This underlines the complexity of the subject and reflects the difficulties of taking a decision. Like him, I understand the chalet owners on an emotional level. Nevertheless, the scientific arguments are more convincing. Even though the owners tried their best to find a compromise that would suit both parties, the only solution that allows the nature reserve to regain its full potential and remain the important habitat, which it is today, is the demolition of the chalets.

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<sup>15</sup> Baudraz, Michel. Interview by author

<sup>16</sup> Baudraz, Michel. Interview by author

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