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Candidature au Prix Charles Ritz 2019

Cher Jury,

Par la présente, nous souhaitons poser notre candidature au prestigieux Prix Charles Ritz, dont sa renommée nous est parvenue ici à Berlin.

Nous sommes un Club de Pêche à la Mouche de Berlin, qui s'appelle « Fario e. V.». Nous souhaitons par cette candidature vous présenter nos activités des dernières années, ainsi que vous faire partager notre passion pour la nature, l'habitat des rivières et les salmonidés.

Veuillez Madame, Monsieur, croire à l'expression de nos sentiments les meilleurs,

Mario Retzlaff
Président

Andreas Schumacher Vice-Président

Péer Doering-Arjes

Secrétaire

Dennis Werner Attaché de presse Martin Rahmel

Trésorier

Uli Thiel

Responsable rivières

Mirko Beutling

Responsable écloserie



DOSSIER DE CANDIDATURE

Fiche descriptive

Nom du Candidat

Fario e. V.

Nom du Projet:

Responsibility for Sustainability by Fly Fisher – A Story of Care

Date de réalisation:

May 1995 – June 2019

Description du Projet :

Fario e. V. engages in two river habitats pursuing the following goals:

Goals – Dosse: create & maintain sustainable brown trout & grayling habitats **Goals – Stepenitz:** reintroduce migratory salmonids & create sustainable stock Beside renaturation & education efforts an own hatchery is operated where salmon, sea trout & brown trout are raised to be released into these rivers.

Description du lieu, des moyens, des résultats :

Both habitats & the hatchery are located in Brandenburg, northwest of Berlin. During 2013-2018 members dedicated 4,976 hours of voluntary work & the club invested € 112,000 (€ 50,000 grants) into the hatchery & other projects.

Results - Dosse: Healthy, natural stock of brown trout established

Results - Stepenitz: 1,121 sea trout & 355 salmon returned & monitored

Actions «en faveur de la protection de l'eau, des poissons ou des rivières» :

Actions – Dosse: improving passability (6 weirs), planting trees, collecting waste, stocking juveniles in tributaries, infilling gravel, deterring cormorants **Actions – Stepenitz:** improving passability (13 weirs), monitoring, hatching, raising & releasing migratory salmonids, since 2013 operating own hatchery

Actions pour la pêche et les pêcheurs :

Dosse: Since 1999 caring about 20 km, 5 km "fly fishing only" since 2003 **Stepenitz:** Since 2010 catch of one sea trout allowed & rewarded when reported

Actions de communication et formation des jeunes :

Communication: Partnerships with scientific institutions, governmental authorities & the local community are established to conduct actions successfully. Communicating actions & successes within the fishing community & the general public on a continuous basis via according press & media.

Youth: guided walking tours along riverbanks, courses on fly tying, fly casting, rod building as well as presentations about the art of fly fishing are performed.



1. The vision

"There is more to fishing than catching fish." Dame Juliana Berners

Seven billion homo sapiens have impact on the world's health – climate change and species extinction are the most prominent and worst examples of this scientifically proven truth. However, another option is not to be dismissed: current and future knowledge give humans the ability to cure by living sustainably, i. e. a way of living today which does not harm possibilities of the next generation. It is the awareness of this ability, which induces compelling responsibility.

This concept of "responsibility for sustainability" corresponds to the nature of every fly fisher, who wants to catch fish as long as he can walk to his stretch of water. On a more subtle level, every angler enters into a relationship with his stream, his lake and the targeted fish species. It is a process over days, years and over the course of their lives. Eventually fascination turns into a caring relationship, which ends in a desire to care about what and how to use it "by fly fisher".

While hope rises that international politics are beginning to see the urgency to act, the individual however is faced often by a feeling of fainting: the tasks to be accomplished are overwhelming and the individual's power is perceived too small to have an impact. Fortunately, it was not so bad with a group of six like-minded fly fisher in Berlin. Guided by the conviction that every small step in the right direction is a jollier step and a small group of people with a great vision is more powerful than a big group with no vision, the foundation of Fario e. V. (Fario) became reality in May 1995. Witnessing impact, assessing strength and taking action together is the pragmatic circle, upon which the members act. In light of the region's dark history and inspired by the reunification of Germany we are not willing to accept that our region cannot be a "Contemplative Men's Recreation" and a pleasure for fly fisher. Since then the mission is clear: Create and preserve a self-sustainable stock of salmonids in free flowing river habitats in the Berlin & Brandenburg region acknowledging the fact, that these habitats are elementary for our passion of fly fishing.

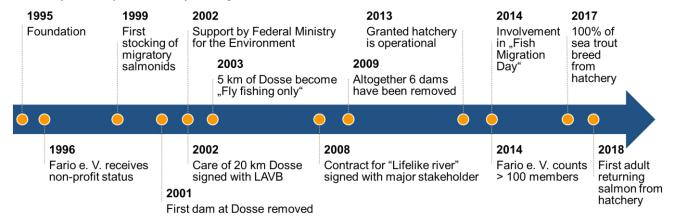


Figure 1: History & major activities – Fario e. V.

2. The work

"Be the change you want to see in the world." Mahatma Gandhi

Fario is deeply rooted in the Berlin environs following our charter for environmental protection by the fly fisher. Organized in two organs (see Figure 4 | p. I), the club's mission is to not only cherish and enhance the art of fly fishing with courses and presentations on casting 2 , fly tying 3 , split-cane rod-building 4 and fishing 5 – including jointly organized fishing tours within Europe. Guided by our vision of self-sustaining fish populations in free flowing habitats, we furthermore take responsibility in two different rivers systems of our region. Pursuing different goals and different types of salmonids, the habitats are both located in the northwest of the Federal State Brandenburg as depicted in Figure 2. Due to the landscape's Pleistocene genesis, these lowland streams are characterized by reduced flow and critical dynamics between sand and gravel. Unified in the vision and enabled by the member's diversity, intense and extensive voluntary work accompanied by scientific expertise have significantly changed these habitats since the foundation in 1995, as the following chapters will elucidate.

2.1 River Dosse

The Dosse meanwhile is the number one destination from Berlin for dreamlike mayfly hatches in a cultural landscape dominated by pasture and crop plant farming. Here, one usually meets more cranes, geese and ducks than people. The river has been heavily affected by regulation, pollution, drainage pipes and dams. Surprisingly, the melioration of the river in the 1960s led to an increase in flow velocity and cooling. After this intervention, a



strong colonization with scuds led to the idea of stocking brown trout. For about ten years a stable stock of brown trout was introduced and delighted many sport fishermen. But for a number of reasons, the species disappeared again. It was the beauty of this small river and its historically proven potential, which directed the founding members of Fario to take over consultative and almost administrative responsibility for the river management – in a cooperative matrix with local authorities and parties affected. Beginning with a stretch of 20 km in the year 1999 this responsibility was contractually sealed in 2002 with the Deutscher Angelfischerverband e. V. (DAFV), the German umbrella organization. It must be noted here, that every German citizen with a valid fishing license for Brandenburg is allowed to fish in this river. But it is these few members of the Fario who foster this stream with the aim to restore the river not only for brown trout and grayling but also with regard to the structural habitat being so important for other species, mammals and insects alike.

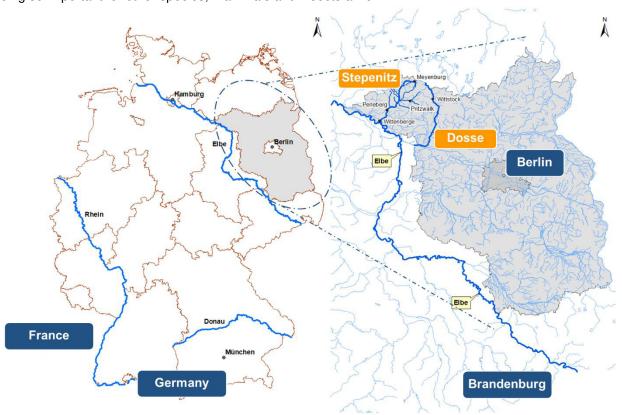


Figure 2: Geographical location of rivers within Germany and the Federal State Brandenburg

So, what was done in the past 24 years? The following actions are examples how Fario came into work to conserve and maintain the river as a salmonid's habitat. Since 2000 each year juvenile brown trout are raised in tributaries for one year old fish, which are then collected by electrofishing to be released in the river Dosse (see Figure 10 | p. IV). The juvenile fish had been coming directly from Belzig, a DAFV-operated hatchery, meanwhile Fario is running its own hatchery (see next chapter). In 2001, the first weir was rebuilt and transformed into a bottom ramp. After that, it went for a while in quick succession: Baumannsbrücke, Fretzdorf, Rossow, Teetz and then Schönberg. One can say that one weir was rebuilt every year until 2005 – strike on strike.

In 2003 a stretch of 5 km – called the "racetrack" – became "fly fishing only" on the recommendation of Fario. In the following year, a scientific work about effects of renaturation in Dosse was published, supported by Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) and Fario. Accordingly, repeated measures like planting trees, collecting waste and building groynes by infilling gravel in order to improve spawning grounds for trout and grayling were undertaken year after year (see Figure 9 | p. III). Also, cormorants were deterred during winter. This is especially important for this spring-fed river which does not freeze in winter and must be seen in light of the steep development of cormorant populations in Brandenburg in recent times (see Figure 6 | p. I).

Measures of maintenance and acquisition of new goals characterize the common calendar of our unique club culture. Often diplomatic intuition meets lust for fish. Learning from each other seems to be the best fun and there is no greater curiosity than that of an angler. The enormous effort could only be tackled through the close cooperation of reliable members, their friends and families with local authorities and other regional stakeholders. On average, 830 hours of work are performed each year on a voluntary basis. It is a stunning result, that fishing for strong brown trout in river Dosse is possible again. Fish, that can grow up in an appropriate, natural way and having the diversity in their belly that surrounds them. At best, a generation of wild offspring.



2.2 River Stepenitz

Having a length of 86.4 km and a catchment area of approx. 870 km² the river Stepenitz with its five tributaries is one of the few remaining pearls in Brandenburg. This lowland stream meanders with a mean discharge of 6 m³/s into the river Elbe, which ends in the North Sea near Hamburg. Luckily, during former GDR-times, the Stepenitz was untouched in major parts contributing to today's precious character. Its natural appearance and water quality results in the highest conservation value of Brandenburg rivers.⁶ In 2002, the diversity of fish fauna counted 38 species. Besides all three species of lampreys, which are endangered, the Stepenitz contains a self-sustaining brown trout stock.⁷ Being a perfect habitat for both alike, the most skilled fly fisher and the king of fishes – the Atlantic salmon (*Salmo salar*). King or not. Once upon a time, German rivers also had a large part of the salmon traffic throughout Europe. The finned migrants (salmon & sea trout (*Salmo trutta trutta*)) not knowing national borders were regarded extinct or at least untraceable since the 1960s.⁸ The official record as of 1781 (see Figure 7 | p. II) testifies that those species were found in former times in the river Stepenitz.

In light of other efforts in Germany, the program for re-introducing salmon & sea trout in Brandenburg was started in 1998. Initiated by Landesanglerverband Brandenburg (LAVB) as well as the Institute of Inland Fisheries (IfB), Fario supported the project and its overall goal from the very first moment: establishing wild and self-sustainable salmon & sea trout stocks in selected rivers around Berlin! This utopia expressed dreams of fly fisher and unified forces of Fario. Following a scientifically guided approach,⁹ the project started with an in-depth investigation of historic documents about the existence of these migratory fish in Brandenburg. Also, the structural suitability of several rivers systems was investigated and without coincidence, the Stepenitz was chosen. Meanwhile, Stepenitz is testified in 2009 for being of supra-regional importance for long-distance migratory fish.¹⁰

Almost exactly 20 years ago – precisely on April 01st, 1999 – the first stocking of juvenile salmon and sea trout began. Since then, every spring members of Fario help executing this task (see Figure 10 | p. IV), using a method from the 18th century where a good distribution is a key success factor causing a time of 1 hour for 5,000 of these immediately district-forming juvenile fishes. ¹¹ The initial stocking-strategy experimented with different origins – Ireland (Shannon), Sweden (Lagan) and Denmark (Skjern Å) – as well as stages of development with regard to the salmon. ¹² Figure 3 depicts the stocking efforts since the beginning, summarizing a total of 1.1 million salmon as well as 1.5 million sea trout. The overall value of approx. € 0.5 million being invested in the hatch translates to 520 hours of honorary work for this task only.

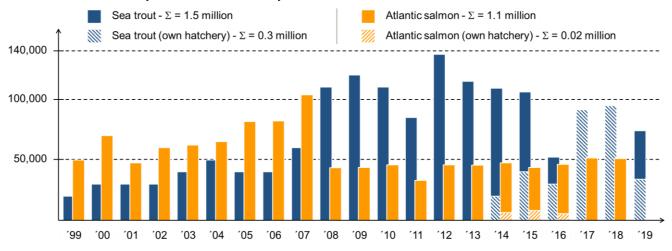


Figure 3: Stocking effort of migratory salmonids – Stepenitz

Every autumn – from September until December – the return of adult, spawning migratory salmonids is monitored using electric fishing. Being a highlight for every member with regard to honorary work, netting a giant of 10 kg, measuring it for the scientific programme and releasing it back is an important, rewarding and tiring yet unforgettable task (see Figure 11 | p. IV). Since the first returning fish was detected in 2002, a total of 1,121 sea trout and 355 salmon were counted. Figure 5 (see p. I) shows the development of returning fish, where double the amount is regarded realistic for overall returning fish due to the only once a week monitoring.

Scientific calculations in 2011 showed, that return rates of 0.3-0.8% in relation to the migrating smolts are by an order of magnitude too low to accomplish the goal of a self-sustaining stock. Approx. 100 returning spawning pairs are needed, including the excess stock for fishing!¹³ A return rate of 3%, which is common for autochthonous – i. e. native or endemic – populations, would be enough to achieve this goal for the Stepenitz system! Latest research showed, that the genetic effect on homing – the migratory fishes' ability to find its juvenile waters – can deliver this missing order of magnitude.¹⁴ Consequently, the next phase of the program became evident:



replacing the stocking practice of releasing allochthonous juvenile fish – i. e. fish from other habitats – towards descendants from fish that have achieved returning to Stepenitz.

In 2013 the members of Fario decided to support this next step by setting up and operating an own hatchery. Funded by LAVB as well as Fario itself the facility is operational since autumn 2013 and comprises two parts (see Figure 14 | p. VI): At first, returning fish are kept between October and January until ready to spawn in four round basins á 4m³. Eggs are taken, fertilized and then taken to the second part, the hatchery. Comprising four modern incubator cubicles as well as four long basins, the capacity is up to 450,000 eggs. While sea trout are released into the Stepenitz once hatched and the yolk sac containing only a few days of nutrition — usually in March — Salmon are raised for six-monthly juveniles. The reason being to further support the scientific studies about the proportion of self-sustaining salmon in comparison to marked fish of the hatchery, which as of today is about 20%. Including the current hatching season altogether 310,000 sea trout and 21,000 salmon were hatched and released into the Stepenitz. In 2017 and 2018, all sea trout eggs came from returning fish, being exemplary for the contribution to foster the genetic effect on self-sustainability. Since 2013 investment and operating cost for the hatchery total € 107,000 of which Fario took over € 57,000. The remainder are grants by local authorities and donations, not to forget the many honorary hours spent by members of the Fario and friends alike (see Figure 12 | p. V).

First success of this 20-year running project is clearly visible: an increasing number of redds as well as an increasing number of unmarked salmon smolts proof natural reproduction. In 2018, the first returning fish from the hatchery was detected, furthermore increasing the speed the genetic effect will have on achieving the overall goal. Nevertheless, establishing a self-sustaining stock of migratory salmonids is not yet achieved. The salmon, a so-called umbrella species, is an indicator for the health of an ecosystem. Great efforts must be accomplished to rescue these magnificent fish from extinction worldwide. ¹⁵ Obstacles like overfishing, erosion, dams, drainage-caused pollution have to be overcome on national and supra-national levels. It does not come without reason 2019 is the "International Year of the Salmon" (IYS).

3. The Future

"The greatest people are those who can give hope to others." Jean Jaurès

Unified by the vision, the joy of achieving together and celebrating partial successes, members of Fario will dedicate their voluntary time and money in the future to continue the work described in the previous chapters. Reflecting on the vison of creating and preserving self-sustainable stocks of salmonids in free flowing river habitats, the emphasized action areas for the coming years are two-folded:

Improve habitat

Structural diversity is the main deficiency of both habitats – especially the Dosse. Consequently freeing the rivers out of manmade beds with further renaturation efforts as well as tearing down weirs and dams are tasks the club will emphasize. The importance of loosening gravel was demonstrated in other European waterbodies and will be conducted in September 2019 for the first time.

Engage locals

Communicating with local stakeholders is as important as incorporating the youth. "Fridays for Future" 16 gives a great example about the mighty power of young people as well as the current timing for the need of change. Consequently, all three schools in Perleberg on the banks of the Stepenitz shall be incorporated.

Nevertheless, in light of the concluding report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) on May 04th, 2019 in Paris as well as the "Paris Agreement" on climate change from December 12th, 2015 we have to question our actions, indeed ourselves: Are our activities enough to fulfil our responsibility for sustainability?

We have to acknowledge the fact that 110 members of Fario alone will not be able to turn around these global challenges. What is highly needed are people who see the urge, feel the responsibility to act and have the joy of achieving. Being a bright, educating and successful example Fario wants to encourage, indeed infect our fishing brothers and sisters to become imitators.

How big is the potential? Alone in Germany, more than eight thousand fishing clubs with 0.9 million members exist, 1.7 million valid state fishing licenses¹⁷ are issued and with 6.2 million people fishing at least once a year it is regarded the third biggest sport.¹⁸ Over 25 million anglers in 28 member states witness the European dimension of this potential.¹⁹ According to the motto "Think global act local" the IYS together with the Prix Charles Ritz will draw the necessary public attention so that anglers within Europe have a visible inspiration.



Annex

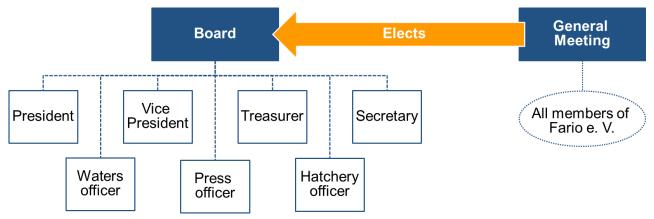


Figure 4: Organigram of the Fario e. V.

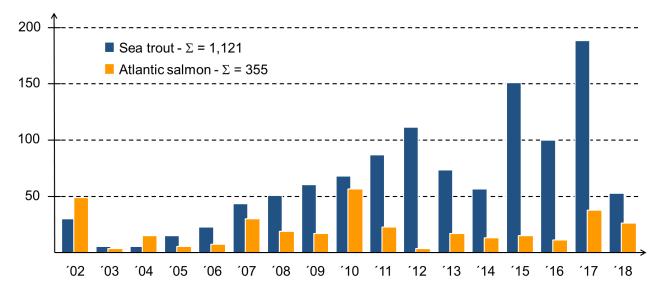


Figure 5: Numbers of returning salmon & sea trout - Stepenitz



Figure 6: Development of cormorant pairs in Brandenburg



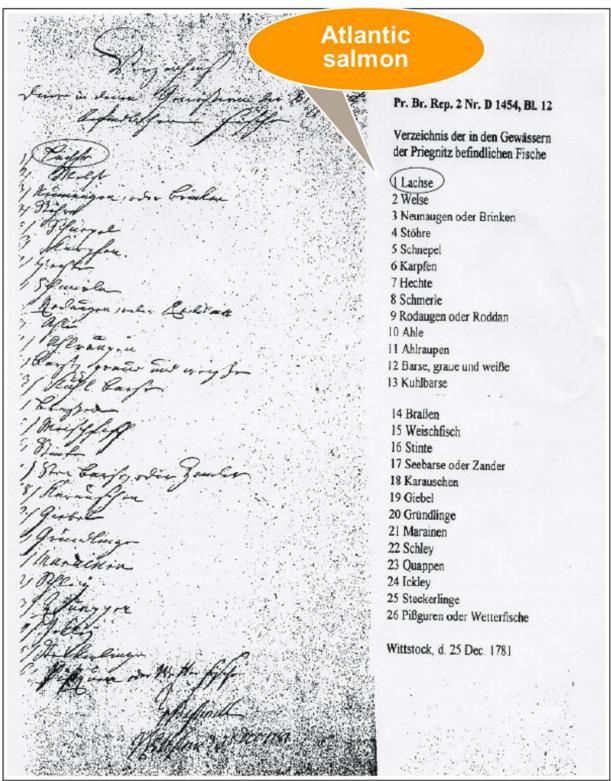


Figure 7: Official record of 1781 on the fish fauna of the Prignitz²⁰





Figure 8: Habitats



Figure 9: Renaturation















Figure 10: Releasing juvenile salmonids











Figure 11: Monitoring





Figure 12: Hatchery

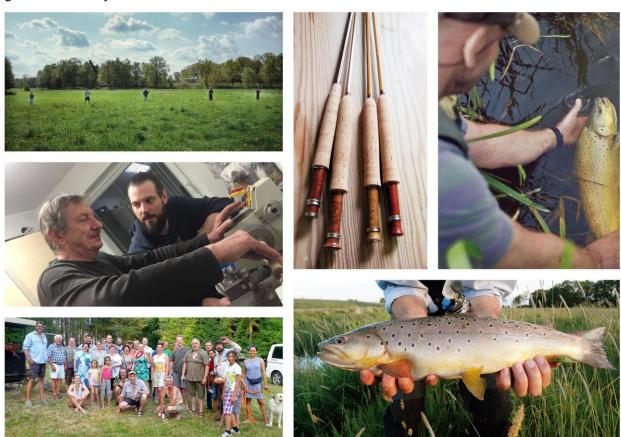
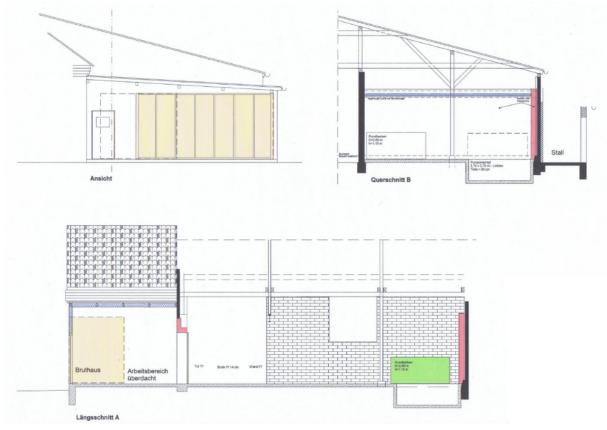


Figure 13: Impressions





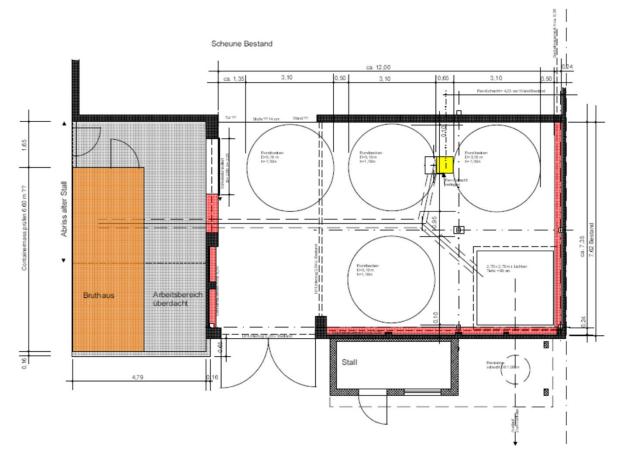


Figure 14: Ground plan & profiles – Hatchery



Endnotes

- ¹ Walton, I. (1653): The Complete Angler; or, The Contemplative Man's Recreation, London.
- Highlights have been casting instructions by Chris Rownes in 2004, Mel Krieger in 2006 as well as Hans-Rudi Hebeisen in 2010 who lectured members of the Fario e. V. Furthermore, Fario e. V. organizes a "Spey-Day" for the open public every year, providing insights in techniques of double-hand casting for the beginner as well as the highly skilled caster.
- At least once each year members of Fario e. V. meet at the "Fly tying day" where experienced as well as rewarded tyers like Theo Atanassov and Joachim Nicklas demonstrate and teach modern as well as classic tying techniques.
- ⁴ Two members of Fario e. V., namely Alfred Olbrich and Peer Doering-Arjes are experienced and respected spit-cane rod-builders.
- 5 Besides a presentation by Paul Arden in 2002 a recent highlight in spring 2019 was the visit of Stanislav Mankov from Bulgaria, who introduced "Fishing the Balkans".
- See Scharf, R. et al. (1998): Die sensiblen Fließgewässer und das Fließgewässerschutzsystem im Land Brandenburg, Studien und Tagungsberichte 15; Landesumweltamt Brandenburg, Potsdam.
- See Table 1 on page 20 in Zahn, S.; U. Thiel, K. Kohlmann, R. Wolf, S. Stäblein (2017): Die Wiederansiedlung von Lachs und Meerforelle in Brandenburg. Schriften d. Instituts f. Binnenfischerei e. V. Potsdam-Sacrow, 49, Institut f. Binnenfischerei e. V. Potsdam-Sacrow (Hrsg.), Potsdam.
- ⁸ See Fischwaid, issue April, year 2018, page 4.
- The overall approach as well as scientific results between 1998 and 2016 are summarized in Zahn, S.; U. Thiel, K. Kohlmann, R. Wolf, S. Stäblein (2017): Die Wiederansiedlung von Lachs und Meerforelle in Brandenburg. Schriften d. Instituts f. Binnenfischerei e. V. Potsdam-Sacrow, 49, Institut f. Binnenfischerei e. V. Potsdam-Sacrow (Hrsg.), Potsdam.
- See Gaumert, T. et al. (2009): Ermittlung überregionaler Vorranggewässer im Hinblick auf die Herstellung der Durchgängigkeit für Fische und Rundmäuler im Bereich der FGG Elbe sowie Erarbeitung einer Entscheidungshilfe für die Priorisierung von Maßnahmen. . Abschlussbericht, FGG Elbe & BIOCONSULT, Magdeburg, Bremen u. Gnarrenburg.
- ¹¹ See Märkischer Angler, issue March, year 2017 on page 16.
- From 1999 until 2016 approximately 1,037,596 salmon of different stages of age have been stocked: 496,600 alevins; 420,388 six-monthly parrs; 109,445 one-year-old pre-smolts; 11,163 smolts. According to page 54 in Zahn, S.; U. Thiel, K. Kohlmann, R. Wolf, S. Stäblein (2017): Die Wiederansiedlung von Lachs und Meerforelle in Brandenburg. Schriften d. Instituts f. Binnenfischerei e. V. Potsdam-Sacrow, 49, Institut f. Binnenfischerei e. V. Potsdam-Sacrow (Hrsg.), Potsdam.
- According to page 51 in Zahn, S.; U. Thiel, K. Kohlmann, R. Wolf, S. Stäblein (2017): Die Wiederansiedlung von Lachs und Meerforelle in Brandenburg. Schriften d. Instituts f. Binnenfischerei e. V. Potsdam-Sacrow, 49, Institut f. Binnenfischerei e. V. Potsdam-Sacrow (Hrsg.), Potsdam.
- Compare page 336 and 356 in Keefer, M. L.; Caudill, C. C. (2014): Homing and straying by anadromous salmonids: a review of mechanisms and rates in Rev Fish Biol Fisheries, issue 24, pages 333–368.
- ¹⁵ See also page 4 in Fischwaid, issue April, year 2018.
- ¹⁶ Compare activities online: https://www.fridaysforfuture.org
- ¹⁷ See page 21 Brämick, U. (2017): Jahresbericht zur Deutschen Binnenfischerei und Binnenaquakultur 2017.
- ¹⁸ See IfD Allensbach Statista 2018 according to DAFV, online: https://www.dafv.de/referate/gewaesser-und-naturschutz/itemlist/tag/Studie.html
- ¹⁹ See information brochure oft he European Anglers Alliance (EAA) as of April 2015, online: https://www.eaa-europe.org/about-eaa/eaa-brochure.html
- ²⁰ See Figure 11 on page 28 in Zahn, S.; U. Thiel, K. Kohlmann, R. Wolf, S. Stäblein (2017): Die Wiederansiedlung von Lachs und Meerforelle in Brandenburg. Schriften d. Instituts f. Binnenfischerei e. V. Potsdam-Sacrow, 49, Institut f. Binnenfischerei e. V. Potsdam-Sacrow (Hrsg.), Potsdam.