Výskyt rýb, osobitne jeseterov, v strednom Dunaji v súvislosti s klimatickou zmenou

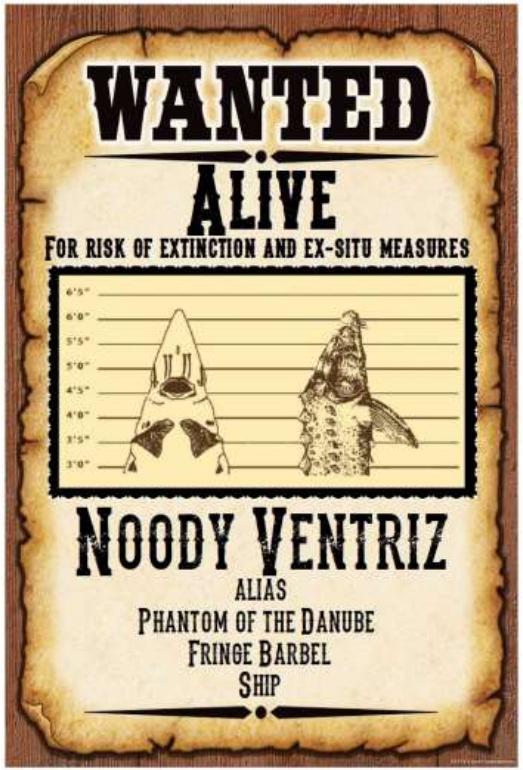
Ladislav Pekárik

Jesetery sú dáždnikovým druhom pre Dunaj

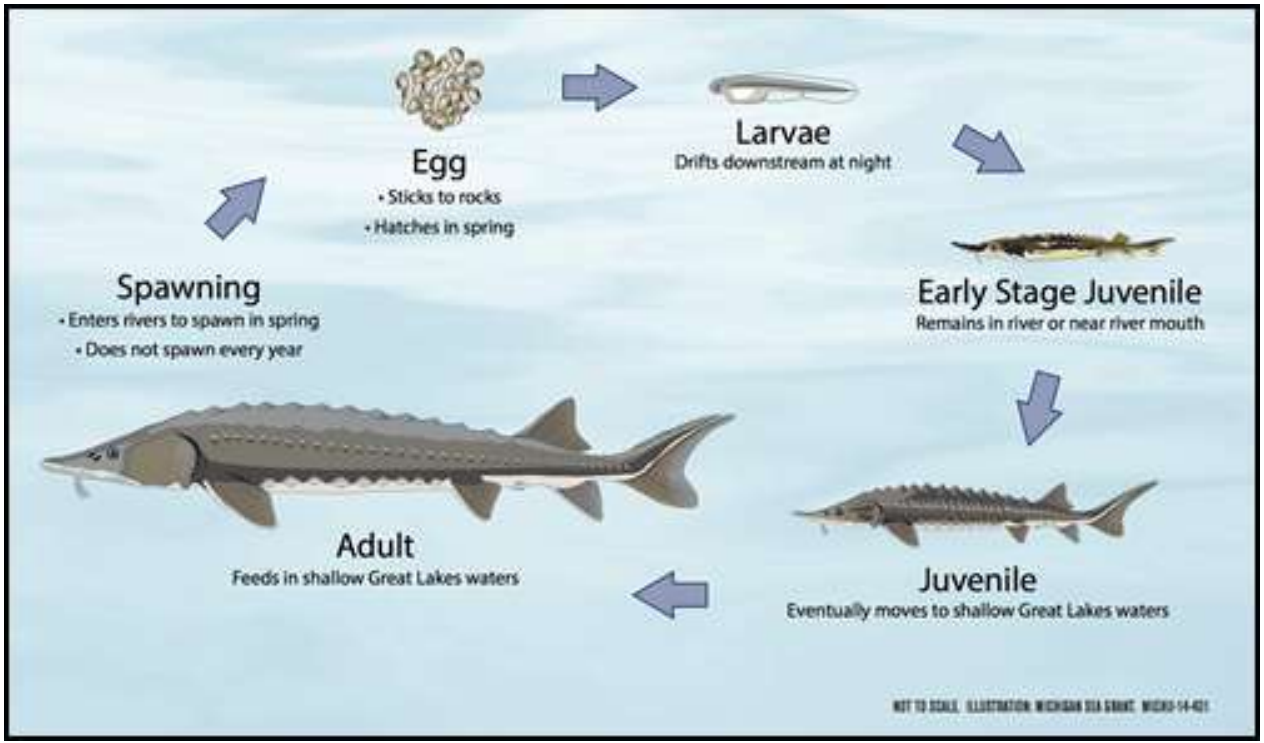
- Dunaj je najmedzinárodnejšia rieka sveta - preteká cez 10 krajín
- Medzinárodné projekty
  - InterReg - Dunajský nadnárodný program - projekt MEASURES
  - projekt - LIFE STERLET, LIFE BOAT4STUERGONS
- Domáce projekty - APVV projekt - Manažment a ochrana dunajských jeseterov
- Akčné plány - Sturgeon action plan (2005), Sturgeon 2020, Pan-European action plan for Sturgeons (2018)

Dunajské jesetery

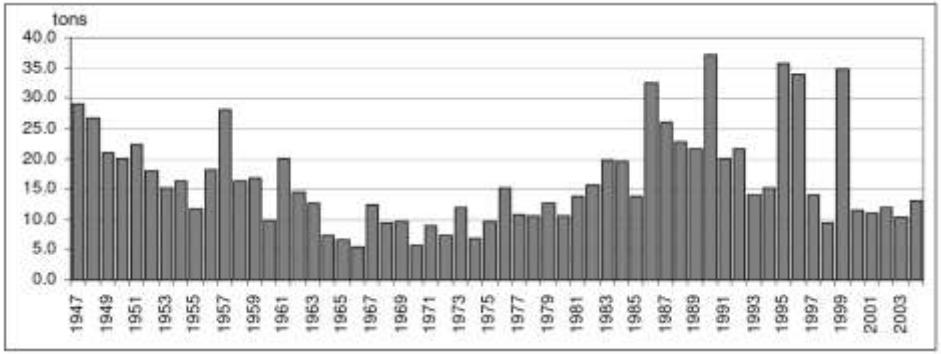
- V Dunaji sa vyskytovalo až 6 druhov jeseterov - jeseter veľký iba sporadicky
- Vyza veľká, jeseter ruský a jeseter hviezdnatý už len v dolnom Dunaji
- Jeseter malý ešte aj v strednom a hornom Dunaji
- Jeseter hladký pravdepodobne v Dunaji vyhynul



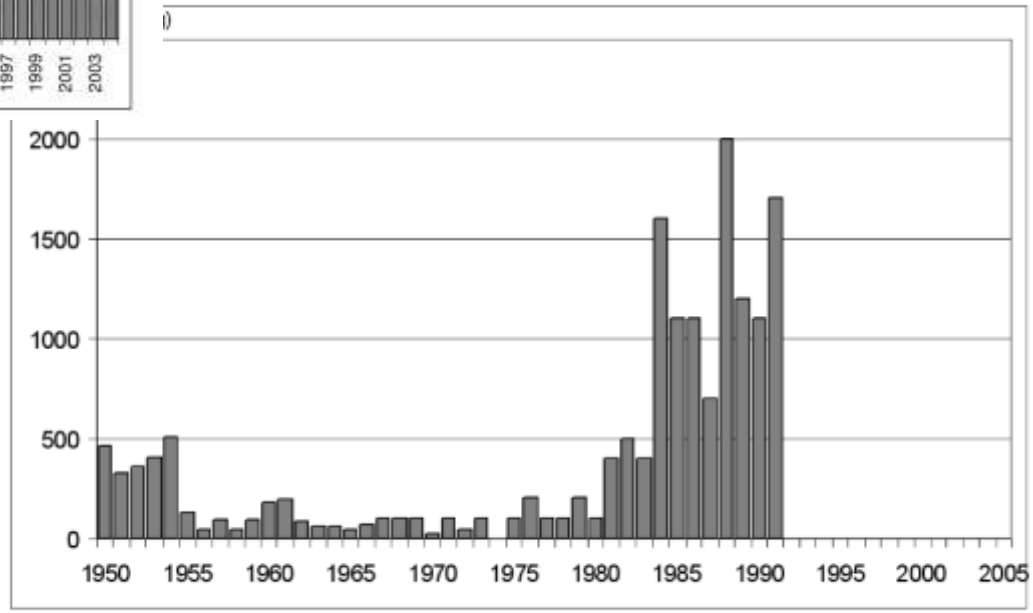
Pomerne zložitý životný cyklus jeseterov



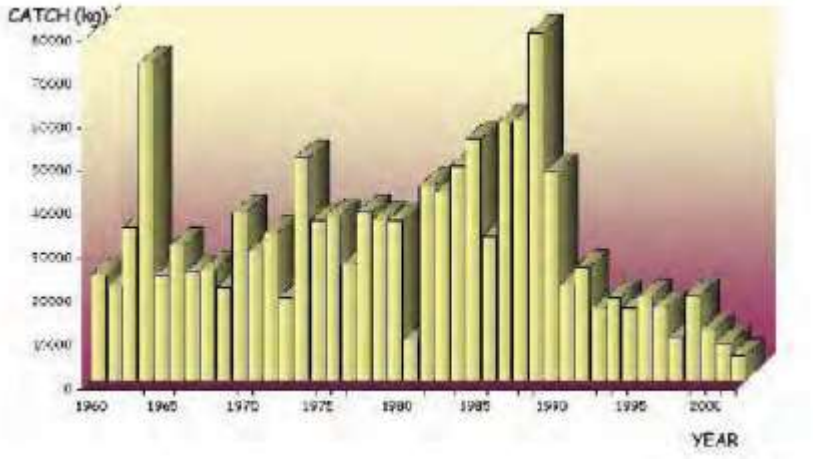
Zdroj: https://www.fws.gov/fisheries/fishmigration/lake_sturgeon.html



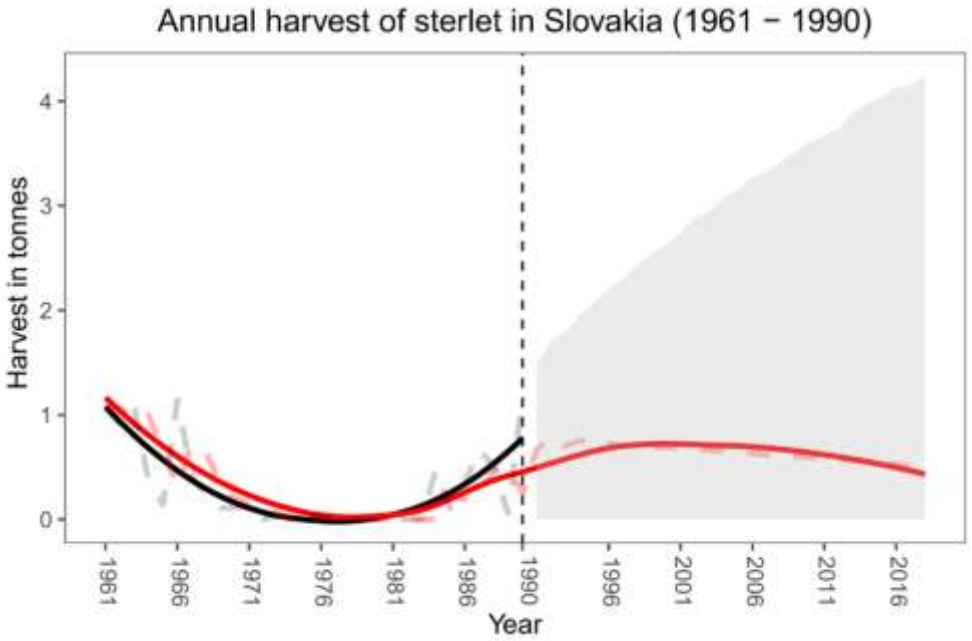
Guti, G. (2006). Past and present status of sturgeons in Hungary. In *Proceedings of the 36th International Conference of IAD. Austrian Committee Danube Research/IAD, Vienna* (pp. 143-147).

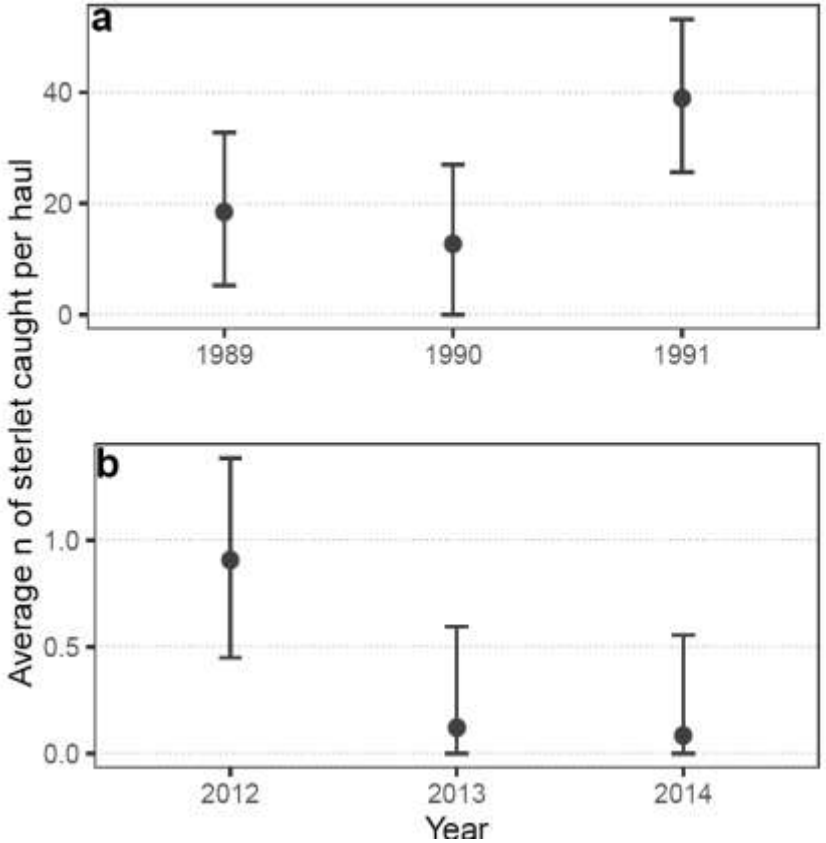


Guti, G., & Gaebele, T. (2009). Long-term changes of sterlet (Acipenser ruthenus) population in the Hungarian section of the Danube. *Opusc. Zool. Budapest*, *40*(2), 17-25.



Lenhardt, M., Gyore, K., Ronyai, A., Smederevac-Lalic, M., & Gacic, Z. (2015). Status of sterlet (Acipenser ruthenus L.) in Serbia and Hungary.

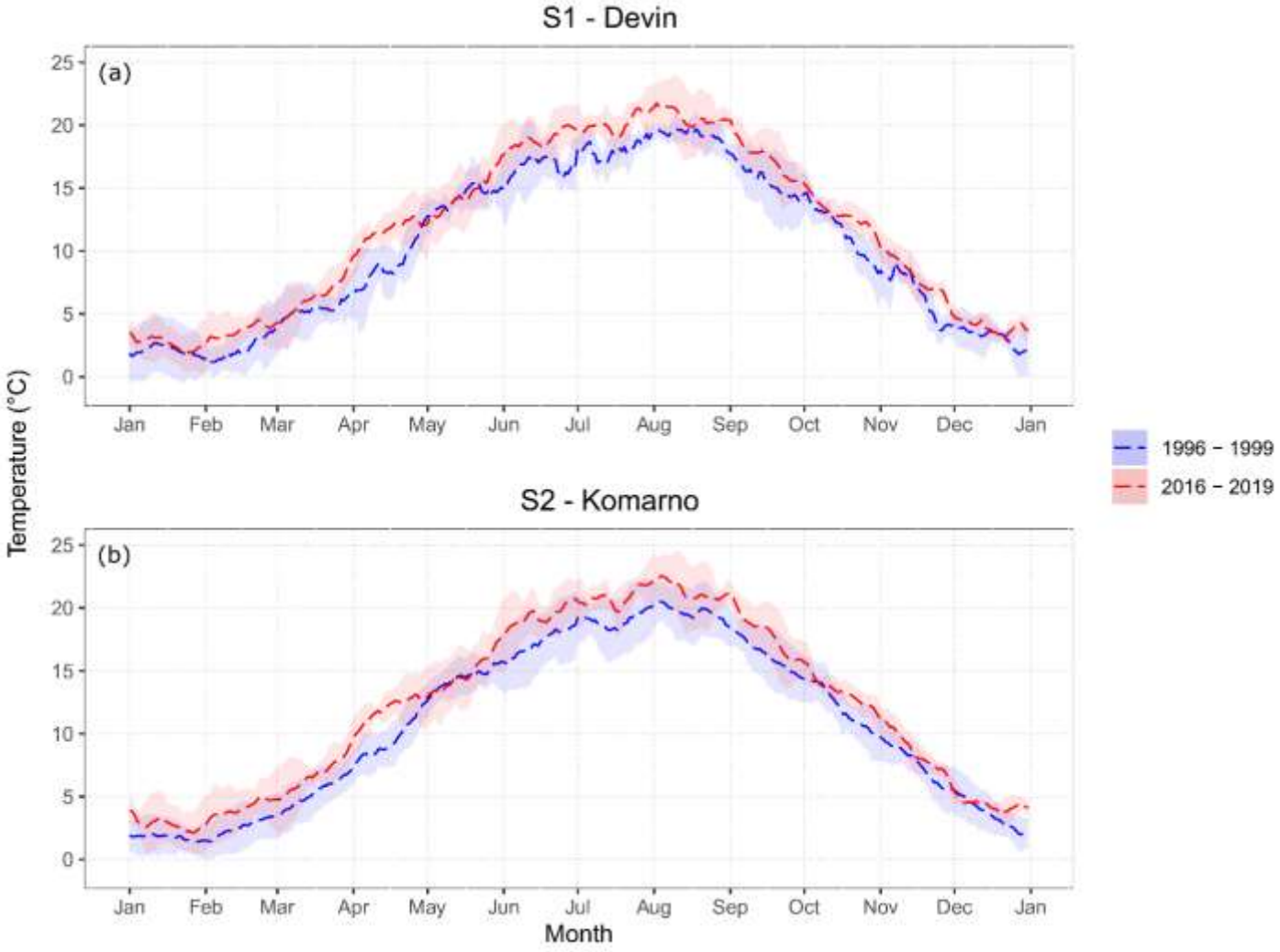


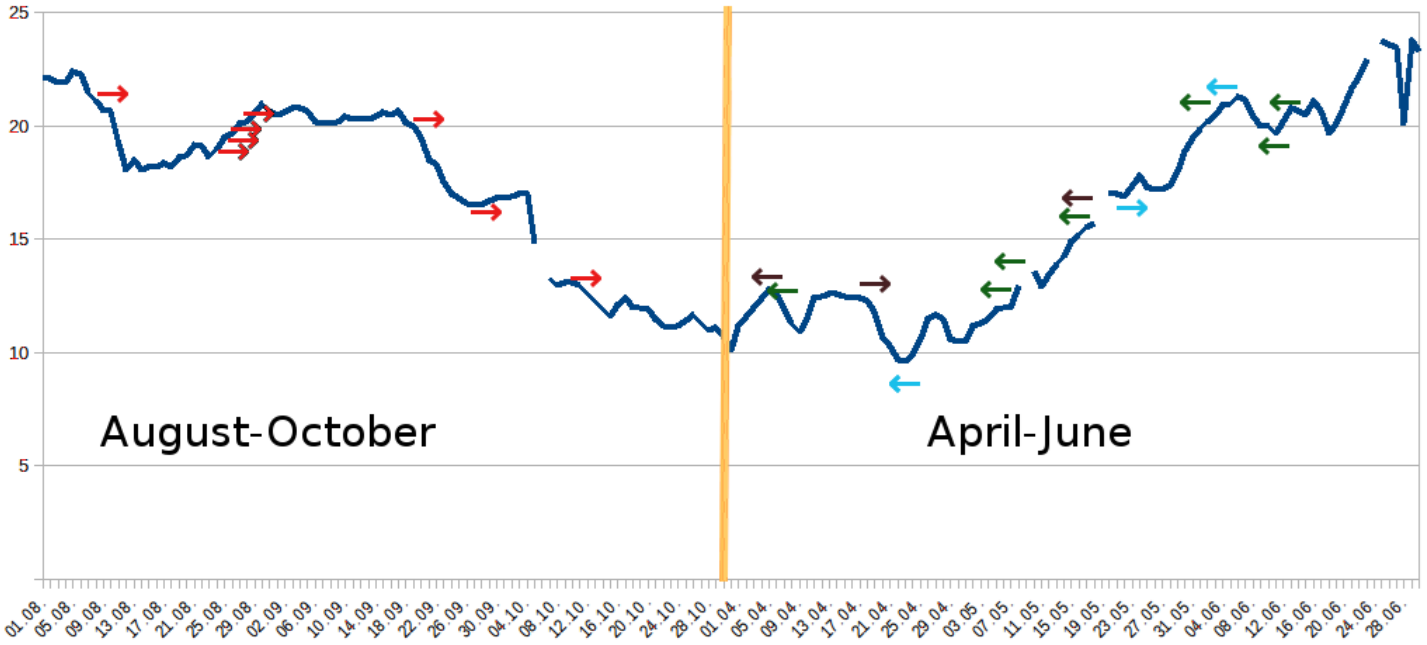


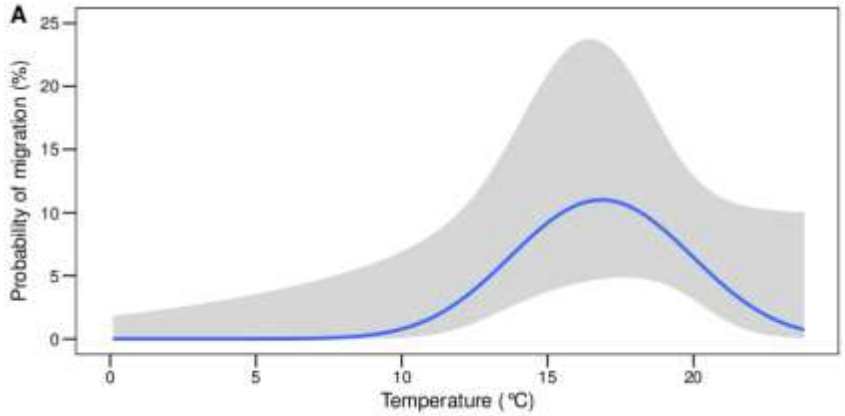
Kubala, M., Farský, M., Krajč, T., & Pekárik, L. (2021). Bayesian modelling suggests that the sterlet (Acipenser ruthenus, Linnaeus 1758) population is ageing in the middle Danube River. Aquatic Conservation: Marine and Freshwater Ecosystems, 31(3), 469-479.

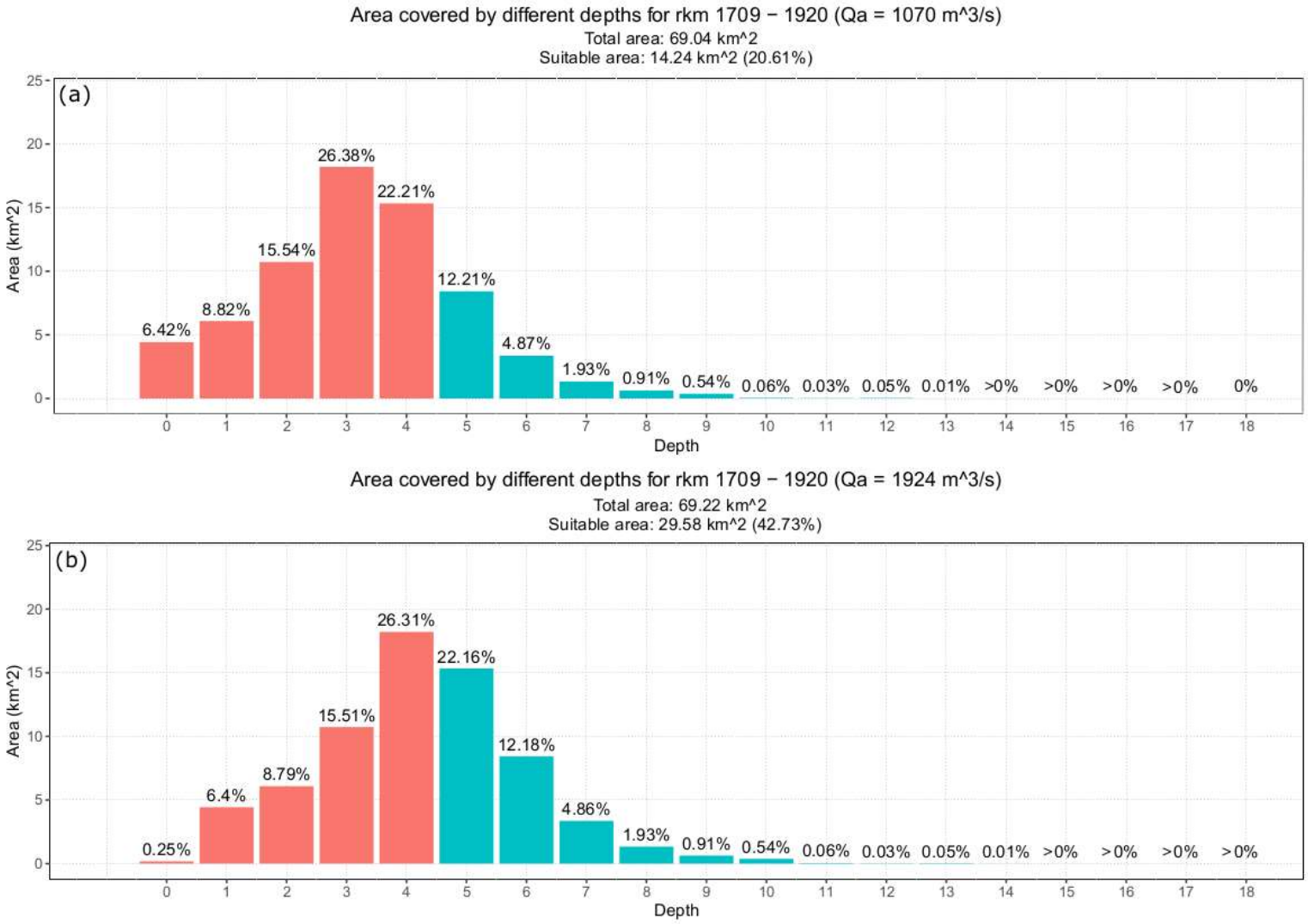
Zmena klímy a Dunaj

- Zmena v teplote vody
- Zmena hydrologického režimu
- Strata habitatov a ich fragmntácia
- Zmeny v rozšírení druhov
- Vyššie ohrozenie nepôvodnými druhmi
- Ohrozenie patogénmi a parazitmi


S1 - Devin
(a)
S2 - Komarno
(b)
Temperature (°C)
25
20
15
10
5
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Month
1996 – 1999
2016 – 2019


25
20
15
10
5
August-October
April-June
01.08.
05.08.
09.08.
13.08.
17.08.
21.08.
25.08.
29.08.
02.09.
06.09.
10.09.
14.09.
18.09.
22.09.
26.09.
30.09.
04.10.
08.10.
12.10.
16.10.
20.10.
24.10.
28.10.
01.04.
05.04.
09.04.
13.04.
17.04.
21.04.
25.04.
29.04.
03.05.
07.05.
11.05.
15.05.
19.05.
23.05.
27.05.
31.05.
04.06.
08.06.
12.06.
16.06.
20.06.
24.06.
28.06.


A
Probability of migration (%)
25
20
15
10
5
0
0
5
10
15
20
Temperature (°C)


Area covered by different depths for rkm 1709 − 1920 (Qa = 1070 m^3/s)
Total area: 69.04 km^2
Suitable area: 14.24 km^2 (20.61%)
(a)
Area (km^2)
Depth
6.42%
8.82%
15.54%
26.38%
22.21%
12.21%
4.87%
1.93%
0.91%
0.54%
0.06%
0.03%
0.05%
0.01%
>0%
>0%
>0%
>0%
0%
Area covered by different depths for rkm 1709 − 1920 (Qa = 1924 m^3/s)
Total area: 69.22 km^2
Suitable area: 29.58 km^2 (42.73%)
(b)
Area (km^2)
Depth
0.25%
6.4%
8.79%
15.51%
26.31%
22.16%
12.18%
4.86%
1.93%
0.91%
0.54%
0.06%
0.03%
0.05%
0.01%
>0%
>0%
>0%
>0%

Ako vplýva zmena klímy na ostatné druhy?

Ďakujem za pozornosť