

Table S1. Questions of the structured interviews.

Question number	Question
1.	Please, specify your profession and place of work, then describe your relation to the fishpond system in question.
2.	Please, take a look into our list of ecosystem services and based on your knowledge, select those that are provided by the fishpond system in question (only select those ecosystem services that you have already known before the interview).
3.	Do you know any other form of ecosystem service that is currently provided by the fishpond system in question however, it was not on our list?
4.	From your previous choices, please highlight those ecosystem services that are important for your stakeholder group. Please, explain your choices if it is possible.
5.	Do you know any impacts or interactions (positive or negative) related to the ecosystem services you were selected in question 2? If you do, could you please explain them?

Table S2. Revealed ESs of the fishpond systems.

Ecosystem services	Descriptions
Fish production	fish, produced by fish farms
Reed production	reed (as raw material), harvested from the area of the fishpond systems
Feed for grazing livestock	natural sources of feed (hay, reed, etc.), provided for livestock grazing on the banks
Firewood	firewood, provided by woody vegetations
Microclimate regulation	ability of the fishpond systems to puffer the effects of extreme temperature changes locally
Carbon sequestration and storage	ability of the fishpond systems' aquatic and terrestrial vegetation to absorb and store CO ₂ from the air in the form of carbon
Air quality regulation	ability of the fishpond systems to absorb polluting materials (dust, etc.) from air
Water quality regulation	ability of the fishpond systems to regulate the level of organic and inorganic materials in the water (nitrate, nitrite etc.)
Water storage	stored water of the fishponds that could be used alternatively in the case of extreme droughts
Opportunity for water retention	ability of the fishpond systems to store unnecessary waters of surface runoffs in the case of extreme precipitation levels
Groundwater recharge	ability of the fishpond systems' canals to provide groundwater for the surrounding areas
Aesthetics	spectacular views and landscape units, that visitors could experience
Cultural heritage/Inspirational source	ability of the fishpond systems to raise the level of cultural heritage by giving inspirational sources to artists and visitors
Opportunities for scientific research	ability of the fishpond system to provide opportunities for the implementation of scientific researches
Opportunities for environmental education	ability of the fishpond system to provide opportunities for educational activities
Recreation	different forms of recreational activities provided by the fishpond systems (hiking, hunting, etc.)

Table S3. Number of times when the listed ESs were highlighted by the key-informants of the selected fishpond systems.

Ecosystem services	Number of highlights per fishpond systems			
	Akasztó	Biharugra	Szeged	SUM
Fish production	3	12	7	22
Reed production	0	9	4	13
Feed for grazing livestock	2	0	0	2
Firewood	1	0	0	1
Microclimate regulation	2	0	6	8
Carbon sequestration and storage	0	8	2	10
Air quality regulation	0	10	0	10
Water quality regulation	1	8	3	12
Water storage	0	4	5	9
Opportunity for water retention	0	0	3	3
Groudwater recharge	0	7	0	7
Aesthetics	0	11	0	11
Cultural heritage/Inspirational source	2	9	6	17
Opportunities for scientific research	1	5	6	12
Opportunities for environmental education	1	10	5	16
Recreation	3	11	7	21

Table S4. Mean mentioning values of the main ES categories; FF—fish farming; NC—nature conservation; WM—water management; T—tourism (SD: Standard deviation).

ES categories	Biharugra					Szeged					Akasztó				
	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM
Provisioning ESs	2.5 ±3 SD	1.25 ±1.5 SD	0	1.5 ±1.73 SD	5.25 ±6.18 SD	0.5 ±0.57 SD	1.25 ±1.5 SD	0.75 ±0.96 SD	0.25 ±0.5 SD	2.75 ±3.4 SD	1 ±0.82 SD	0.5 ±0.58 SD	0	0	1.5 ±1.29 SD
Regulating and maintaining ESs	2.71 ±2.06 SD	1±0.82 SD	0	1.57 ±1.40 SD	5.29 ±4.03 SD	0.71 ±0.48 SD	1.14 ±1.21 SD	0.71 ±0.95 SD	0.14 ±0.38 SD	2.71 ±2.29 SD	0.29 ±0.49 SD	0.14 ±0.38 SD	0	0	0.43 ±0.79 SD
Cultural ESs	4 ±1.7 SD	3 ±0 SD	0	2.2 ±0.84 SD	9.2 ±2.49 SD	0.6 ±0.55 SD	2.4 ±1.34 SD	1.4 ±0.89 SD	0.4 ±0.55 SD	4.8 ±2.77 SD	1 ±0.71 SD	0.4 ±0.55 SD	0	0	1.4 ±1.14 SD

Table S5. Mean importance values of the main ES categories; FF—fish farming; NC—nature conservation; WM—water management; T—tourism (SD: Standard deviation).

ES categories	Biharugra					Szeged					Akasztó				
	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM
Provisioning ESs	1.5 ±2.38 SD	0	0	0.5 ±1 SD	2 ±3.37 SD	0.5 ±0.58 SD	1 ±1.15 SD	0	0.25 ±0.5 SD	1.75 ±2.06 SD	1 ±0.82 SD	0.25 ±0.58 SD	0	0	1.25 ±0.96 SD
Regulating and maintaining ESs	0.29 ±0.76 SD	0.71 ±0.95 SD	0	0.86 ±1.21 SD	1.86 ±1.86 SD	0	0	0.29 ±0.76 SD	0	0.29 ±0.76 SD	0.14 ±0.38 SD	0	0	0	0.14 ±0.38 SD
Cultural ESs	0.2 ±0.45 SD	1.6 ±1.34 SD	0	1 ±1.41 SD	2.8 ±2.05 SD	0.2 ±0.45 SD	2 ±1.22 SD	0	0.4 ±0.55 SD	2.6 ±1.82 SD	0.6 ±0.55 SD	0.4 ±0.55 SD	0	0	1 ±1 SD

Table S6. Revealed positive impacts related to the listed ESs with the number of times when they were mentioned by the members of each stakeholder sectors of the selected fishpond systems; FF—fish farming; NC—nature conservation; WM—water management; T—tourism.

Interactions	Biharugra					Szeged					Akasztó				
	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM
Fish farming activity is the base of every other ES in the list	5	2	0	3	10	1	3	0	0	4	0	2	0	0	2
Fish production positively affects biodiversity	5	0	0	0	5	1	2	0	0	3	0	1	0	0	1
Fish production creates opportunities for recreational activities	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Fish production positively affects carbon sequestration and storage through biodiversity	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Fish production positively affects microclimate regulation	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Biodiversity positively affects carbon sequestration and storage	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Biodiversity positively affects reed production	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Biodiversity positively affects fish production	6	0	0	0	6	1	0	0	0	1	2	0	0	0	2
Biodiversity positively affects water quality regulation	4	1	0	0	5	0	2	1	0	3	1	0	0	0	0
Biodiversity positively affects recreational activities	2	2	0	1	5	0	1	0	0	1	0	1	0	0	0

Table S6. Cont.

Interactions	Biharugra					Szeged					Akasztó				
	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM
Recreation positively affects opportunities for environmental education	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0
Recreation positively affects opportunities for scientific research	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0
Water storage positively affects microclimate regulation	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Grazing positively affects biodiversity	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

Table S7. Revealed negative impacts related to the listed ESs with the number of times when they were mentioned by the members of each stakeholder sectors of the selected fishpond systems; FF—fish farming; NC—nature conservation; WM—water management; T—tourism.

Interactions	Biharugra					Szeged					Akasztó				
	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM	FF	NC	WM	T	SUM
Biodiversity negatively affects fish production through fish eating bird species	6	0	0	0	6	1	0	0	0	1	2	0	0	0	2
Reed production negatively affects biodiversity	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0
Reed production negatively affects opportunities for scientific research in the case of biodiversity	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Recreation negatively affects biodiversity	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Recreation negatively affects fish production	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0