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Conservation activities over the area around Saint-Petersburg, and their impact on pearl mussels



Area around Saint-Petersburg: (Leningradskaya oblast): 7 populations of pearl mussels



Activities contributing pearl mussel conservation:

- Release of salmon parrs in the pearl mussel habitats
- Protected areas covering pearl mussel habitats
- General restrictions of the use of rivers and river banks, absence of private property on rivers.
- Absence of intensive forestry
- Including the species in local red lists

Re-acclimatization of the Atlantic salmon in one river (Gladyshevka)



Releases of salmon juveniles

Year, month	Number	Mean weight, g	Age
2000, May	8500	8-10	1+
2001, May	1500	100	2+
2002, September	10000	8-10	0+
2003, May	1500	15	1+
2003, September	10000	8-10	0+
2004, September	10000	8-10	0+



Pearl mussel observation

Year	Area of bottom studied, m ²	Number of pearl mussels	Number of young pearl mussels
2006	500	3	2
2007	500	5	0
2008	200	-	-
2009	400	2	1
2010	300	1	1

Total area of riffles -
10000 m²

Reproduction in small populations (Gladyshevka river)



Protected areas covering pearl mussel habitats



Pearl mussel habitats - “Disorder” in rivers, conservation of natural vegetation at the river banks



“Disorder” in forestry



Endangered mammals at the pearl mussel habitats (lynx, flying squirrel,



Conclusion:

- Passive conservation measures aiming to protect the whole environment gave the possibility for survival of pearl mussels over the area around Saint-Petersburg, but they do not guarantee its stable existence in a near future. The number of pearl mussels decreases. Active measures including artificial rearing of mussels and their host fishes are required in the most of populations.

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