

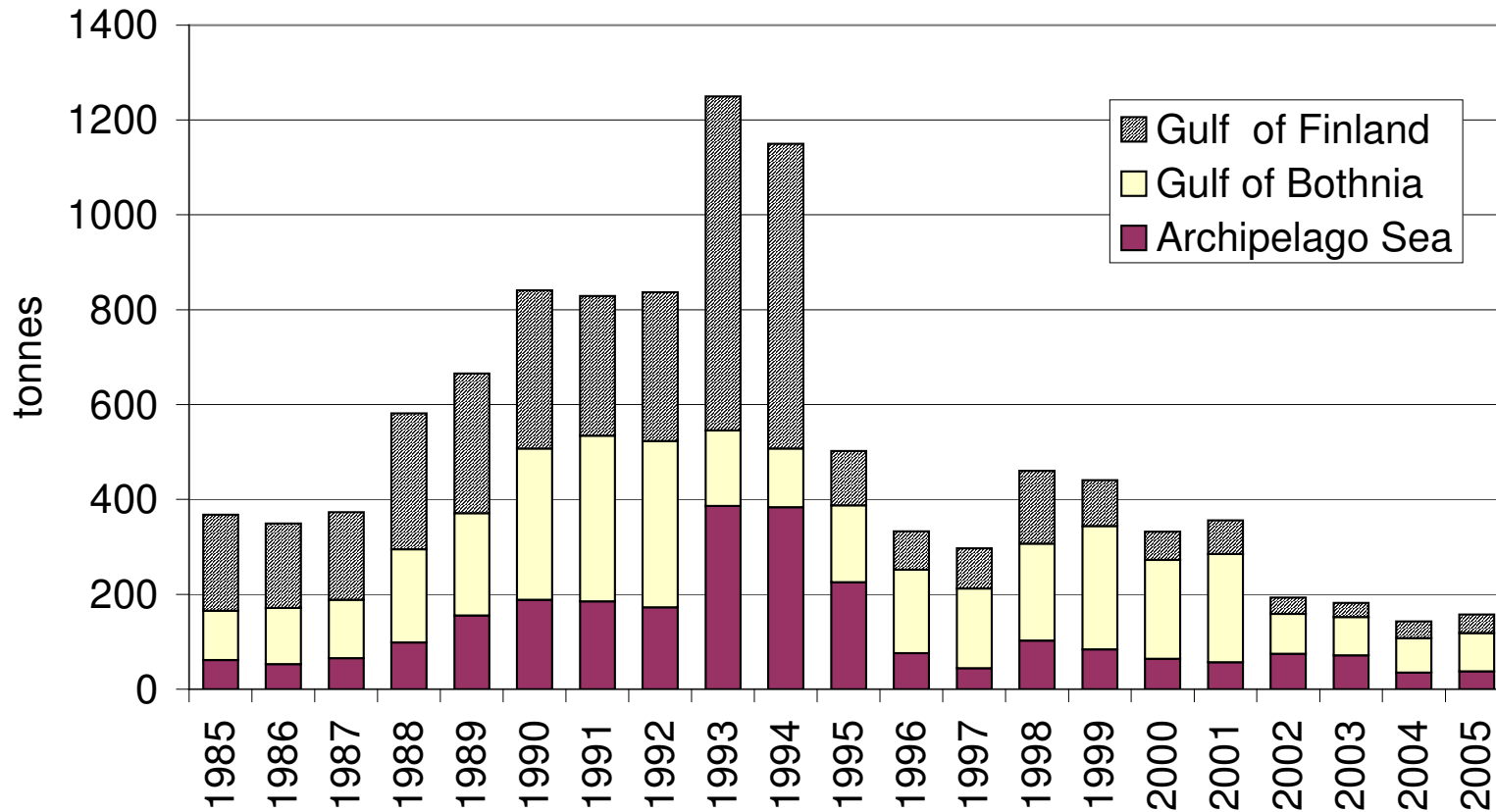
**BALTIC SEA TROUT WORKSHOP
KOTKA 31.5.-2.6.2006**

FINNISH COUNTRY REPORT

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Finnish nominal catches in tonnes



1. Fishing and catches by sea areas

2. Fishing regulations

- Legal catch size in the sea and rivers ≥ 40 cm (total length).
- There are no national common restrictions of mesh sizes.

In sea

- 1/3 of the main stream or legally marked fish passage must be kept open at the river mouth.
- in fishing of salmon and sea trout, 80 mm minimum mesh size (bar length) in drift nets and surface gill nets and 50 mm in other gill nets.
- Off the private shorenear waters in the Gulf of Finland, 65 mm minimum mesh size (bar length) in bottom gill nets targeted for sea trout, minimum length of sea trout 50 cm.
- Many of the private water owners (so-called fishery areas) have enforced 60-65 mm minimum mesh size for bottom gill nets in sea trout fishing in the Gulf of Finland, respectively.
- In the Gulf of Bothnia, some private water owners (fishery areas) have enforced their own minimum mesh size in gill nets.
- At the mouth of a few sea trout rivers, private stakeholders have enforced a closed season for gill netting in summer and autumn.

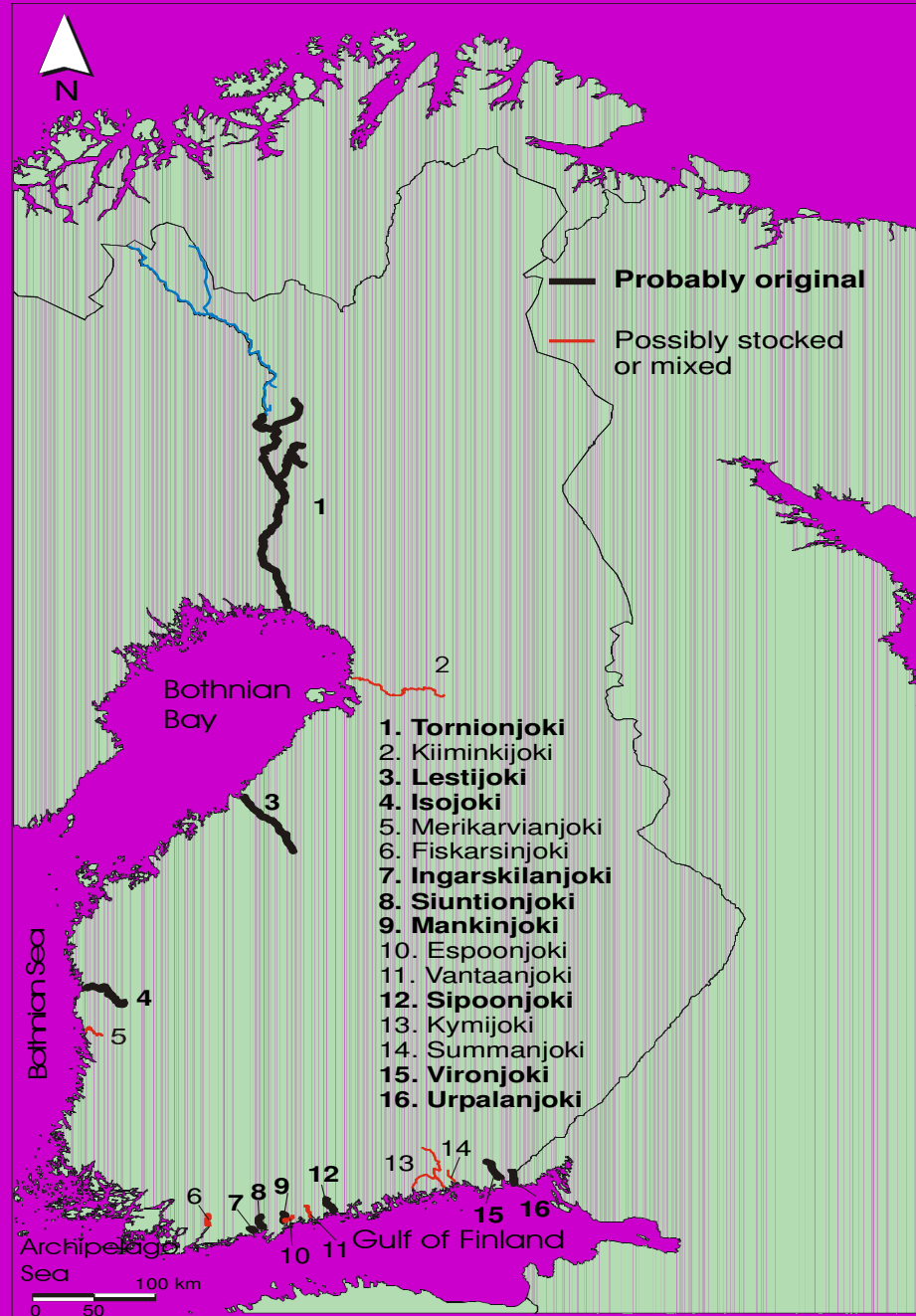
Regulations in rivers

- Gillnet fishing forbidden in most of the sea trout rivers.
- 1/3 of the main stream (so-called king's passage) must be kept open in gill netting or fishing with fixed gear.
- Fishing with gill nets is forbidden 1st September - 30th November.
- Rod fishing forbidden 11th September – 15th November.
- Angling with worm is forbidden in rapids
- In addition, there are some minor regulations regarding some other fishing gears at the river mouths and in the rivers.

3. Sea trout stocks and their status by sea areas

Sea area	Number and status of sea trout stocks		Potential smolt production (approximated)	Notes
	Original/probably original	Stocked/Mixed		
Bothnian Bay	1 critical 1 poor	1 poor	50 000 – 100 000	Supportive stocking in 3 rivers
Bothnian Sea	1 poor	1 poor	10 000 - 25 000	Supportive stocking in 2 rivers
Archipelago Sea	0	2 poor	< 5 000	
Gulf of Finland	3 critical 3 poor	5 poor	70 000 - 100 000	Supportive stocking in 4 rivers

Sea trout rivers in Finland



4. Annual monitoring of sea trout stocks by sea areas

Sea area	Rivers electrofished	Total n of sites	Carlin tagging, n of stocks	Average n of tagged
Bothnian Bay	2	40	3	6 000
Bothnian Sea	2	20	1	3 000
Archipelago Sea	1	5	1	3 000
Gulf of Finland	6	35	2	5 000

5. Threats for the stocks

Sea area	Threats
Bothnian Bay	Sea fishing, water quality, silting of spawning grounds
Bothnian Sea	Sea fishing, water quality, silting of spawning grounds, low flow periods
Archipelago Sea	Sea fishing, water quality, silting of spawning grounds, low flow periods
Gulf of Finland	Sea fishing, silting of spawning grounds, water quality, low flow periods, predators, water regulation

6. Improvement measures in sea trout rivers

Sea area	Fish ways	Restoration	Enhancement/supportive stocking
Bothnian Bay	No	Partial in some rivers	100 000parr/ year, 9 000smolts/year
Bothnian Sea	2	No	20 000 parr/ year, 4 000 smolts/year
Archipelago Sea	1	Partial in some rivers	No
Gulf of Finland	13	Partial in many rivers	5 000 parr/ year, 9 000 smolts/year

7. Potential rivers likely suitable for enhancement/restocking

Sea area	Estimate of the numbers	Potential smolt production
Bothnian Bay	7	5 000 - 20 000
Bothnian Sea	2	<5 000
Archipelago Sea	2	<5 000
Gulf of Finland	9	5 000- 10 000

8. Releases (compensation/sea ranching)

History shortly

- Started in the 1960s, the biggest release programs started in the early 1980s.
- Releases were used firstly for compensatory stocking, nowadays also for sea ranching and enhancement

Brood stocks/ collecting of spawners

- Egg production based solely on reared brood stocks, which are supplemented occasionally by offspring from returning spawners.
- Now totally 5 sea trout stocks are maintained as hatchery brood stocks.

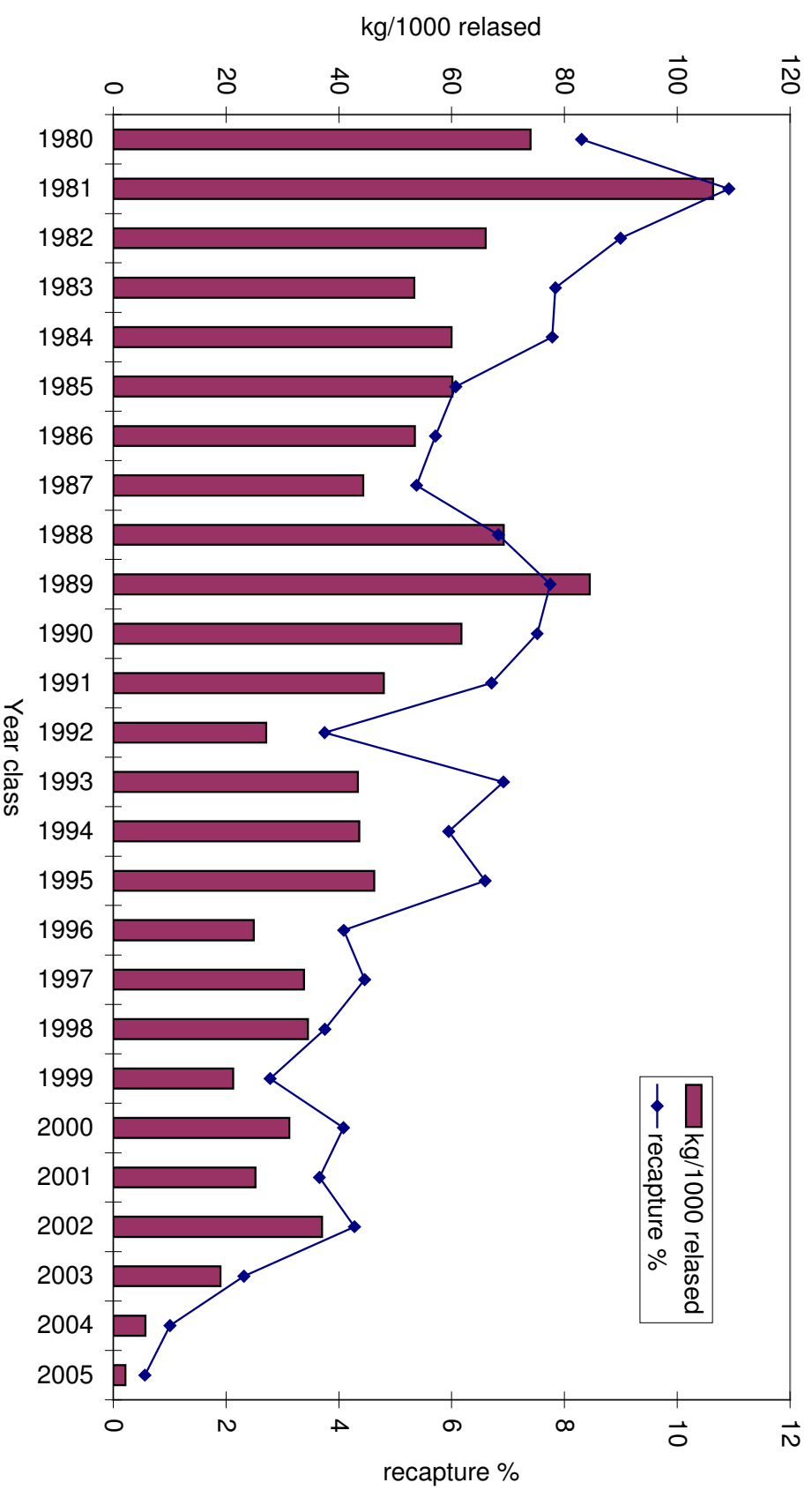
Hatcheries (governmental/private)

- Governmental hatcheries are responsible for maintaining the brood stocks for enhancement purposes.
- Private hatcheries produce smolts for compensation and sea ranching.

Quality criteria for young fish

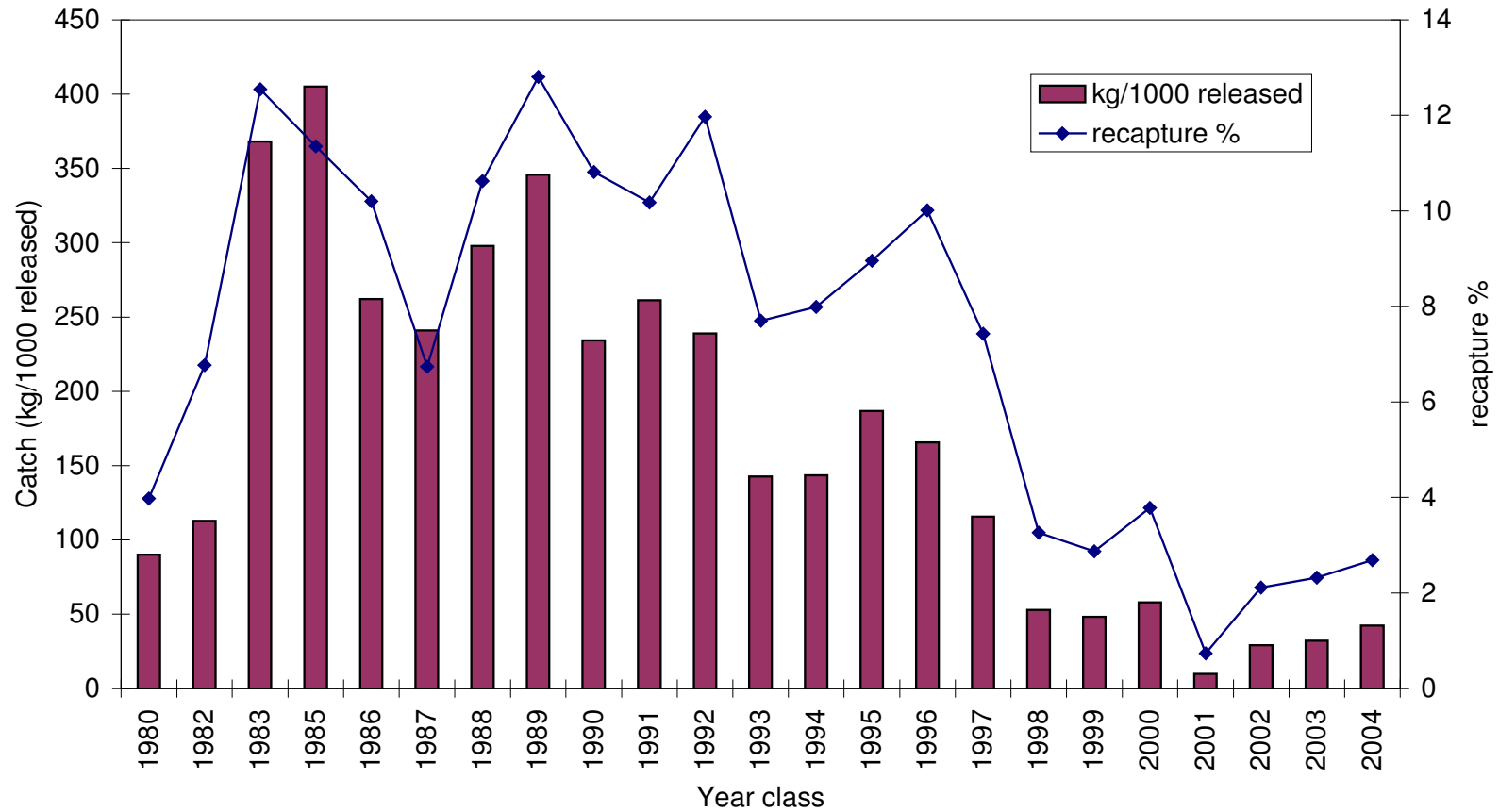
- Minimum size for stocked smolts 18 cm, no other criteria.

Bothnian Bay



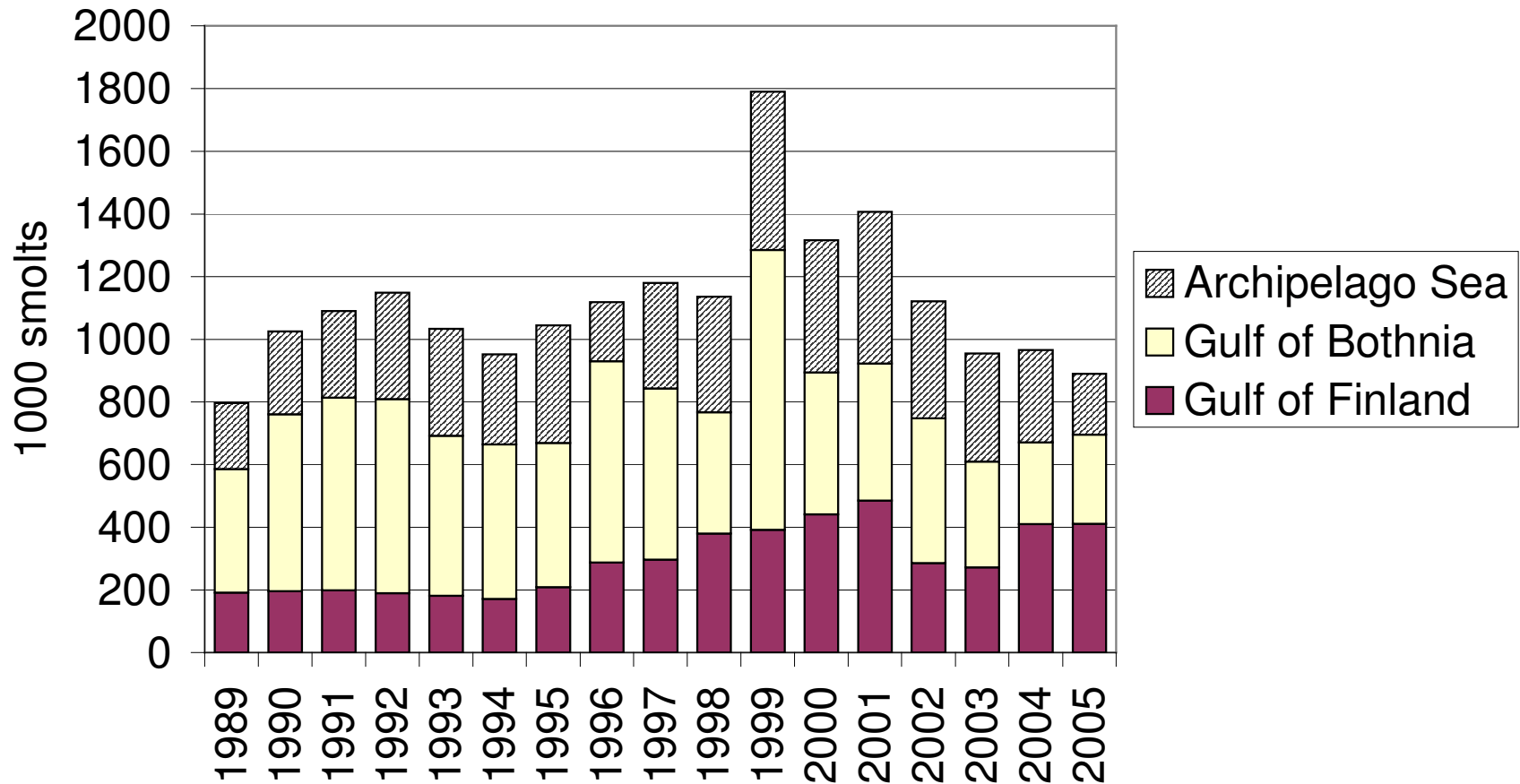
Recapture rates of Bothnian Bay releases in 1980-2005

Gulf of Finland



Recapture rates of Gulf of Finland releases in 1980-2005

Finnish sea trout releases



Releases of sea trout smolts by sea areas in 1989-2005

8. Research activities

Major activities

- Electric fishing,
- Carlin tagging,
- Catch data

Research needs and interests

- Smolt trapping,
- Counts of spawners

9. Linkage between research and fisheries administration

Roles and share of the work

- Finnish Game and Fisheries Research Institute (FGRI): monitoring and stock assessment, enhancement.
- Universities: General biology and environmental research
- Finnish Ministry of Agriculture and Forestry (FMAF) and regional fisheries administration: guidance of national fishing policy including regulation of fishery

Communication

- FGRI: annual reports on the status of the stocks
- FMAF: Guidance of the general fishing policy, consultations with FGRI at need

Co-operation

- FMAF, foundations: Financing of research. FGRI, universities: own and common research projects

10. Needs for national conservation and management measures

- General minimum mesh sizes for gill nets in the sea fishery
- Higher legal size for sea trout
- Larger ban areas on fishing at the river mouths
- Management plans for sea trout rivers
- Recovery plans for potential rivers
- Construction of fish ways
- Improvement of water quality in sea trout rivers
- Restoration of freshwater habitats

11. Needs for international cooperation in research

- Fisheries related subject at the stock recovery phase: selectivity/catchability (gear, time, area)
- Improvement of habitats: fish ladders, eutrophic habitats, conflict with hydropower production in small rivers (sociology, economy)
- Aquaculture related: enhancement (age, stock)
- Tagging programs / exchange of tagging data (releases and recoveries)
- Joint projects:
- Import of brood stock(s) from Russia in the Gulf of Finland

12. Needs for international cooperation in management

- Planning and implementation of joint regional management plans in the Gulf of Bothnia (FIN – SWE) and Gulf of Finland (FIN – RUS – EST)

13. Main conclusions

- All sea trout stocks in Finland are in poor or critical state.
- The main reason for the present decline is too high fishing pressure in the sea.
- Majority of sea trout are caught premature as a by-catch by bottom gillnets for other species.
- Low numbers of spawners result in risks both for natural reproduction and for the maintenance of the hatchery brood stocks.

13. Main conclusions continued

- Immediate management actions are needed to be taken in all sea areas to avoid the risk of extinction.
- Urgent updating of fishing rules (technical regulation measures, e.g. minimum mesh size, temporal and spatial regulations, effort regulation by number of gears/fisher) and of the minimum landing size.
- Improving of the spawning and rearing habitats
- Stock-specific recovery plans by sea areas
- Restocking plans for potential sea trout rivers
- Promotion of international communication in research and management

Thank you