



# Danish Eel Management Plan

In accordance with COUNCIL REGULATION  
(EC) No 1100/2007 of 18 September 2007

establishing measures for the recovery of the stock of European  
eel

December 2008



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Front page photo by Lars Lindskov.

*Control officer inspecting small pile fixed fyke net.*

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## **Authorities responsible for the implementation of the Danish Eel Management Plan**

The Ministry of Food, Agriculture and Fisheries has issued the plan, with scientific guidance from, the National Institute of Aquatic Resources, (DTU Aqua.), at the Technical University of Denmark.

Within the Ministry of Food, Agriculture and Fisheries, the Danish Directorate of Fisheries is responsible for regulating, administering, registering, monitoring and inspecting fishing activities in Denmark.

## Introduction

### The process of drafting the Danish Eel Management Plan

The instigating foundation for initiating the drafting of the EU Council Regulation (EC) No. 1100/2007 for the recovery of the European eel stock was the scientific advice from the International Council for the Exploration of the Sea (ICES) on European eel. According to the advice the stock is outside safe biological limits and current fishing levels are not sustainable. ICES recommended that a recovery plan for the whole stock of European eel be developed as a matter of urgency and that exploitation and other human activities affecting the fishery or the stock be reduced as much as possible.

In the course of developing and shaping the EU Council Regulation 1100/2007, Denmark contributed actively through representation at national and international levels, at ICES, EIFAC, WGEEL, fisheries working groups in Brussels and at Council level.

In order to ensure that eel recovery measures are effective and equitable, Danish authorities identified a series of measures to be taken and areas to be covered with respect to securing the recovery of the European eel stock.

Following the adoption of Council Regulation in 2007, Danish fisheries authorities set up an eel management task force in order to initiate the preparatory work required in connection with the adoption of and compliance with the Council Regulation. The task force comprised fisheries management experts, legislators and eel scientists from the Technical University of Denmark. The task force will continue its work in the on-going process of monitoring, evaluating and adjusting the measures described in this plan.

Given the diverse conditions and needs within the Danish eel fishery, it has been a top priority throughout the course of drafting the Danish Eel Management Plan that the development of management measures has been conducted in an open and transparent process involving and engaging stakeholders at all levels.

In December 2007, the eel management task force presented a baseline report on the Danish eel stock and structures related to eel mortality. Furthermore, in the report a series of management strategies and measures was discussed in relation to compliance with the Council Regulation and the development of a Danish Eel Management Plan.

In January 2008, the Danish Directorate of Fisheries held a stakeholder meeting to inform representatives from all segments of the eel fishing and breeding community of the Regulation, the baseline report and the work ahead. The aim of the meeting was to set the scene for detailed implementation and to inform all relevant parties of the details of the Regulation and its requirements for a reduction in future fishing effort and to engage all interested in creating ideas for and input into the possible measures to be taken in Denmark.

The public meeting was followed by a five week public hearing and idea phase, which produced numerous specific suggestions for further studies and possible measures, several of which have been implemented in legislation and included in this Plan.

In September 2008, the Danish Directorate of Fisheries opened a public consultation on drafts of proposed legislation to be adopted in conjunction with the Council Regulation and the effort reductive measures described in this Plan. The consultation produced a plethora of comments, sugges-

tions and complaints from stakeholders in all segments of the fishing community. These have been considered in as far as they have been compatible with existing Danish legislation, requirements in the Council Regulation and the protection of European eel. Final legislation has been adjusted to meet key interventions aired in the process.

Overall the Danish Eel Management Plan consists of two elements:

- a management plan for inland fresh water in alignment with the objective, in the long term, of reducing anthropogenic mortalities so as to permit with high probability the escapement to the sea of at least 40 % of the silver eel biomass relative to the best estimate of escapement that would have existed if no anthropogenic influences had impacted the stock, as described in Article 2 of Council Regulation (EC) No. 1100/2007
- a management plan for marine water, introducing reductions in fishing effort by at least 50% relative to the average effort deployed from 2004 to 2006 in conformity with Article 8 of Council Regulation (EC) No. 1100/2007

The Danish Eel Management Plan is presented in accordance with the Council Regulation. The Plan incorporates the introduction of a framework for effectively managing an extensive reduction in fishing effort, management measures for mitigating structural eel mortality, improving habitat conditions and re-establishing eel stocks. The Plan also includes a number of initiatives, management tools and development projects aimed at strengthening the quality and quantity of eel data.

Comprehensive data and data analysis is fundamental in assessing the status of eel stock, estimating production and escapement and managing fishing effort. Denmark considers the management plan a living document and the management of European eel an adaptive process to be enhanced as information and knowledge strengthen over time.

# 1. Description of Eel Habitats (Management Units)

## 1.1 Management Units.

### *Inland waters*

Inland waters will be managed according to Article 2 of Council Regulation (EC) No. 1100/2007.

There will be one management plan encompassing all inland waters. Danish inland waters encompass 887 individual river basins covering approx 150 km<sup>2</sup> of wetted area. The number of freshwater lakes above 10 ha is approx 500, covering a total of 430 km<sup>2</sup> and 10 km<sup>2</sup> of reservoirs. Most river basins are very small and do not support a fishery or hydropower production. Given the relatively small size of the country and the high degree of ecosystem similarity of the habitats, there is no justification for designing unique management plans for each of the 887 river basins. Within the Water Framework Directive<sup>1</sup>, Danish inland and coastal waters are separated into four main water districts: Zealand, Jutland, the island of Bornholm and a small international district on the border with Schleswig-Holstein, Germany. These administrative districts are designed with a focus on ground-water management and improvement. The focal point in drafting this plan has been the development of adequate and effective measures to manage and reduce effort and mortality in eel fisheries. This plan is thus suited to fit the legislative and administrative jurisdiction of the Danish fisheries authorities which deal with all inland waters as a whole.

### *Inland Eel habitats*

Denmark is extensively cultivated and influenced by human activities. Most of the lakes are eutrophic (phosphorous), and during the summer, lack of oxygen causes the hypolimnion to lose its function as an eel-producing environment.

There are no natural barriers except on the island of Bornholm. Historically, all fish species, including eel, were able to migrate upstream and downstream in freshwater or between salt water and fresh water. Hundreds of water mills and fish traps were built in the Middle Ages. In the 1700s land reclamation began. For 200 years wetlands and small ponds, lakes and shallow fjords were drained to suit agricultural activities. During the beginning of the 1900s numerous hydropower stations were established. Weirs in connection with old mills and meadow irrigation systems were transformed into rainbow trout farms. After the Second World War there were up to 750 fish farms of varying sizes; the number was reduced to about 500 farms in 1990. In 2003 there were 364 farms and in 2008 there were approximately 230 trout farms left. This figure is likely to be further substantially reduced as traditional production is replaced by large fish farms using water recirculation systems and causing relatively low impact on the environment and which are becoming the norm.

Due to cultivation and lignite mining (during the Second World War), many streams and rivers suffer from high iron content and acidic water.

Generally issues concerning fish habitats in Danish rivers are connected to weirs and obstacles, straightening and canalization, iron rich and acidic water and abundant *macrophyte* growth necessitating frequent waterweed clearance.

Most lakes are highly eutrophic, and many fjords and shallow coastal areas are eutrophic because of nitrogen from freshwater.

Since the beginning of the 2000s several restoration projects have been initiated. The EU Life project, running from 2000 to 2006, had a total budget of about 350 million DKK for river habitat restoration projects in Skjern Å, Varde Å, Sneum Å, Ribe Å, Vidå, Odense Å and lake Furesø, and for the restoration of coastal areas (Blue Reef, Odense Fjord and lagoons at Tryggelev Nor).

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<sup>1</sup> Council Directive 2000/60/EC



A special Act for 2007 - 2009 allocated a total amount of 558 million DKK for habitat restoration in eleven areas in Denmark covering fresh water, fjords and coastal areas.

During 1996-2008 there have been more than 750 local projects paid for partly by funds generated from recreational fishing and angling permits and partly by counties and local municipalities. Projects have aimed at restoring habitats in smaller and medium sized streams; through converting canals to meandering streams, taking down weirs and re-establishing spawning grounds for sea trout and salmon.

The Danish Ministry of the Environment aims to reduce nutrient flows from the cultivated soils to river basins. By eliminating drain pipes, drain ditches and removing pumping stations, projects aim at re-establishing more than 8,800 ha of formerly drained lakes and meadows. By the end of 2007 5,300 ha had been re-established.

#### *Marine water*

Marine waters will be managed according to a national plan for a 50 % reduction in fishing effort, in conformity with Article 8 of Council Regulation (EC) No. 1100/2007

European eel is found all along the 7,500 km Danish coast line, but in estimated low numbers on the open coast of Jutland from the northern tip (i.e. Skagen) down to the Waddensea. Fjords and sheltered bays cover some 3,000 km<sup>2</sup>, and the area of more open coastal waters where eel stocks may be present is estimated at about 10,000 km<sup>2</sup>.

## 1.2 Trans-boundary river basins

Vidå and Kruså are trans-boundary river basins draining Danish and German ground. Kruså is a small river basin with a catchment area of 16 km<sup>2</sup>; about 5 km<sup>2</sup> is on German territory. The Vidå has a catchment area of 1,075 km<sup>2</sup> with 20 % (254 km<sup>2</sup>) in Germany. The German part of the Vidå is to a large extent manipulated by weirs and drainage canals (personal communication by T. Knudsen, Miljøcenter Ribe, Agency for Spatial and Environmental Planning).

Given the relatively small portion of both river basins situated within German territory, both countries have agreed not to construct a trans-boundary management plan. However, the Danish Ministry of Food, Agriculture and Fisheries and relevant authorities in Schleswig-Holstein, Germany have reached an understanding, agreeing on extended collaboration on monitoring both glass eel recruitment and silver eel escapement from the two river systems and the Baltic Sea catchment area in general.

## 2. Description and analysis of the present situation of the eel population.

### 2.1 Fisheries

Eel fishery takes place throughout the country, in shallow fjords, bays, lagoons and inland water bodies. Most of the fisheries take place in the marine areas and 95% of catches are reported from marine waters, 5% from freshwater.

#### *Fishermen and entities*

According to Danish legislation on fisheries, four groups of fishermen and entities can be identified:

- Commercial fishermen and entities in marine waters permitted to sell catches. Catch, vessel and personal information must be registered by the Directorate of Fisheries according to national legislation.
- Recreational fishermen in marine waters are allowed to fish for their own consumption using a limited number of fixed gear. Recreational fishermen must register with the Directorate of Fisheries and buy a yearly permit. The number of registered recreational fishermen in 2007 was 34,238; approximately 50% of these target eel.
- Anglers in marine water and fresh water, using light hand tackle. Anglers must register with the Directorate of Fisheries and buy a yearly permit.<sup>2</sup> The number of registered anglers in 2007 was 234,038. Possibly very few of these target eel.
- Fishermen and entities, often land owners, fishing in freshwater for their own consumption or to a limited extent for commercial purposes. Landowners may lend fishing rights to either commercial or recreational proposes. The number of individuals fishing in freshwater is unknown.

#### *Fishing gear*

The most commonly used gear in the present eel fishery in Denmark are: pound nets, fyke nets, seine nets, trawls, long lines, eel traps, eel pots, line and rod and a variety of spears. See Appendix 9.8 for detailed descriptions and illustrations.

#### *Legal size*

The minimum legal size for yellow eel in marine water ranges from 29.5cm to 38 cm, depending on the region. In freshwater the minimum legal size for yellow eel is 45.0 cm.

There is a ban on glass eel fishing.

#### 2.1.1 Fisheries catch

In accordance with Council Regulation (EEC) No. 28 47193, Article 9, all commercial catches from marine waters are registered by the Danish Directorate of Fisheries. National Danish regulation extends the obligation to register commercial catches from inland waters.

For recreational fisheries, both marine and inland, landings have been estimated.

The total catches for 2004-2006 of the four groups in fresh water and salt water are given in Tables 1 and 2.

<sup>2</sup> Retired citizens and individuals under the age of 18 are exempt from permits.

**Table 1.** Annual mean catch (yellow and silver eel) during 2004-06 in fresh water and marine water (estimated and reported).

Fishery	Freshwater (tonnes)	Marine (tonnes)
Eel traps	App. 3	
Landowners	App.13	
Anglers	Unknown	Unknown
Recreational	Unknown	App.138
Commercial	15	532
<b>Total</b>	<b>App. 31</b>	<b>App. 669</b>

Data source: Recreational catches are estimated using data from a questionnaire carried out in 1997. Catches by eel trap and landowners are based on voluntarily reporting for the years 2004 and 2005. Catches of commercial fishermen (average 2004 - 2006) are from the official database of fish sold on the market (Yearbook of Fisheries Statistics 2007, Danish Directorate of Fisheries/ www.fd.dk).

**Table 2.** Annual catches by commercial fishermen in the reference period 2004 – 2006, divided into silver and yellow stage eel. (Yearbook of Fisheries Statistics 2007, Danish Directorate of Fisheries/ www.fd.dk).

Year	Marine (tonnes)			Freshwater (tonnes)		
	Silver	Yellow	Total	Silver	Yellow	Total
2004	340	176	516	3.5	11.6	15.2
2005	384	132	516	3.3	10.4	13.7
2006	419	146	565	6.9	7.6	14.5
<b>Mean 2004-2006</b>	<b>381</b>	<b>151</b>	<b>532</b>	<b>4.6</b>	<b>9.9</b>	<b>14.5</b>

#### *Freshwater catches*

Catches in fresh water (reported and unreported) are estimated to be 31 tonnes. Approx 50 % or 14.5 tonnes have been reported to the official database (Tables 1 & 2). The rest of the catch data has been collected by asking landowners by means of a questionnaire. The questionnaire has regularly been collected (by DTU Aqua) since 1985.

#### *Marine catches*

The estimated average catches in marine waters in the reference period 2004-2006 were approx. 669 tonnes of yellow and silver eel. The registered catches by commercial fishermen were 532 tonnes (Table 1) and an estimated 138 tonnes were caught by recreational fishermen (Table 1). Silver and yellow eel catches reported by commercial fisheries are given in Table 2.

A component of the Danish pound net fishery targets Baltic Silver eel passing through the Danish straits towards the North Sea. The proportion of Baltic Silver eels in the total catch is unknown, but a tentative estimate suggests that a substantial amount of Baltic Silver eel is caught in Danish marine waters.

### 2.1.2 Fishing effort

#### *Freshwater*

As illustrated in Table 1. freshwater fisheries account for approximately 5% of total Danish eel catches.

There are strong traditions related to eel fishing activities in fresh water. However, the decline in eel stocks has resulted in a drop in eel fishing interests and activities, both commercial and recreational.

It is estimated that 10 full-time commercial fishermen operate in Danish fresh water. These either own or rent private fishing rights to lakes or streams. For lake fisheries, yellow eel is often caught in fyke- or pound nets targeting multiple species, including perch and pike. In streams, silver eel is most often caught in eel traps. There are approx 70 active eel traps, several of which support recreational fisheries. Yellow eel is caught in both eel traps and fyke nets.

According to existing legislation all primary transactions of fish and fish products from freshwater must be registered with the Directorate of Fisheries.

The number of individuals and entities targeting eel for recreational purposes in freshwater is unknown.

The season for yellow eel runs throughout late spring, summer and early autumn. The season for silver eel runs from late summer until late autumn. Both seasons may vary according to temperature, water discharge and lunar cycles.

#### *Marine waters*

As illustrated in Table 1. marine fisheries account for approximately 95% of total Danish eel catches.

There are also strong traditions related to eel fishing activities in salt water. Until the adoption of the Council Regulation, eel fishing was viewed as one of the few “unregulated” fisheries with commercial potential. Recent developments in eel stocks, competition from both domestic and foreign aquaculture and consumer concerns have challenged the financial feasibility of especially large-scale silver eel fisheries.

The season for yellow eel runs throughout spring, summer and early autumn. The season for silver eel runs from late summer until late autumn. Both seasons may vary in connection with temperature, wind, lunar cycles and the types of gear used.

#### *Commercial fishing*

In the reference period 2004-2006 and in 2007 approximately 700 commercial fishermen and entities registered one or more eel landing.

Of these 700 fishermen approx 175 have had a steady gross turnover from eel catches of more than 10,000 DKK/year throughout the period 2004-2007. In 2007 less than 35 eel fishermen were considered seriously dependent on eel fisheries, registering a gross annual turnover of more than 225,000 DKK. The Danish coastal zone fishery is generally characterised as a multi species / multi gear fishery. Fishermen combine seasonal pound net or fyke net fishing targeting eel, with shrimp and demersal species – using similar, modified or completely different types of gear. For a large number of fishermen and entities eel fishing activities and earnings constitute an important and significant part of their earnings and lifestyle.

The total value of registered eel landings in 2007 was approx 34 million DKK. For a number of years rising prices have compensated for declining catches; but this trend seems to have ended in 2008, especially with regard to silver eel. Prices currently reported are as low as 1/3 of the 2007 level.

Pound nets and pile fixed nets are found along the coast and in fjords. Gear constructions vary according to local traditions, depth, currents, winds and predators.

Pound nets along the east coast of Zealand, targeting mainly silver eel, may be fitted with more than 500 m of leader and may cost more than 1 million DKK. Fishermen and entities usually operate less than 10 of these large nets. Often a fleet of 5-6 small barges, pile-drivers, dinghies and fishing vessels are necessary in order to operate and maintain these gears.

The commercial silver eel fishery peaks in late summer / early autumn depending on weather conditions, currents and lunar cycles.

Pile fixed nets in sheltered bays and fjords targeting mainly yellow eel may be fitted with only a few meters of leader and may cost as little as a few thousand DKK a piece. Fishermen and entities usually operate 20-80 of these relatively small nets. Fishing activities and maintenance can often be managed from a single or two small vessels.

The commercial yellow eel fishery runs from late spring until late autumn, usually peaking in the late summer months.

Fishermen and entities using as many as 4,000 fyke nets operate medium sized vessels in coastal waters, targeting both yellow and silver eel depending on location and season.

#### *Recreational Fisheries with fixed gear*

The number of permits sold to recreational fishermen was 34,238 (2007). A survey among permit holders in 1997 showed that 43% (approx 15,000) recreational fishermen were engaged in eel fishing activities in marine waters.

Recreational fishermen are allowed to use a total maximum of 6 fishing units:

- 6 long lines (600 hooks),
- 6 fyke nets (8 m leader)
- 3 nets (max 45 m).
- One fyke net can be fixed on piles and have a 40 m leader.

In 1997 it was estimated that the catches by recreational fishermen were equal to 26% of the official eel landings reported by commercial fishermen.

Recreational fishermen primarily target yellow eel, as fyke nets are designed to catch demersal species. As illustrated in Appendix 9.4 the eel fishing season runs from April to October, reaching a peak in the late summer months.

## 2.2. Obstructions to migration

Inland waters of Denmark are generally relatively small lowland streams. Only a few larger systems exist. The majority of migration barriers are weirs at the outlets of hydropower reservoirs, weirs in connection with trout farms, old mills and factories and small weirs constructed to reduce water velocity where canalisation of streams has taken place. The freshwater legislation has for about 100 years stipulated that barriers must be fitted with eel passes.

Eel passes must be constructed of a plastic tube with a diameter of a 100 mm, or a wooden or metal box 200 x 200 mm. The climbing media used is a nylon textile, called Enkamat 7020. This textile should be looped and 20 mm thick. The Enkamat facilitates eel climbing and reduces water velocity through the pass.

Eel passes and their functionality are controlled by the Directorate of Fisheries.

### 2.2.1 Hydropower

At present, there are 43-61 small hydroelectric power units in operation in Denmark (Table 3). Danish legislation stipulates that physical screens with a maximum bar distance of 10 mm must be installed in front of hydropower turbines. Bypasses guiding the eel around the power plant are established at some power plants, although at most power plants only fish ladders to guide salmonidae are present. The knowledge of the efficiency of the different bypasses and fish ladders for the downstream migrating silver eel is inadequate. It is known that fish impinge on the turbine screens and die there. At present no data is at hand to describe mortality at hydropower screens.

**Table 3.** Number of turbines with licence and their status concerning protecting screens (Status November-December 2006).

	Number	Protecting screens and bar distance		No screen	Not known
		8-10 mm	11-20 mm		
Active	43	35	7	1	
Inactive	11	5	3	1	2
Not known	7	6			1
<b>Total</b>	<b>61</b>	<b>46</b>	<b>10</b>	<b>2</b>	<b>3</b>

### 2.2.2 Aquaculture

Trout farms are often located on the banks of rivers depending on water intake from the rivers. To guide the river water into the trout farm a weir is built in the river. Less than 300 trout farms use "flow through" river water and approx 10 have systems for the recirculation of water. To prevent fish from entering the trout farms a screen with a max. 6 mm bar distance is obligatory at the point of the water inflow and a max. 10 mm bar distance at the point of outflow. Small eel can easily enter trout farms (Nielsen 1982), and are possibly predated by the trout. However, for the past years there has been an ongoing process in collaboration with municipal environmental authorities to improve measures for the unhindered migration of several different fish species.

### 2.3 Predation.

Predation on eel may occur from various species of birds e.g. heron and cormorants and from mammals, e.g. otter, mink, seals and harbour porpoises. In running water elvers and small eels are predated by e.g. perch below weirs. Cormorants are possibly the only important predators due to the large number of nesting birds; predation is largest in the vicinity of the colonies.

The Ministry of the Environment is responsible for the administration of Danish cormorants within the framework of the Council Directive on the Conservation of Wild Birds. (Council Directive No. 79/409/EEC) and Council Directive No. 92/43/EEL on the conservation of natural habitats and of wild fauna and flora.)

The number of cormorants nesting in Denmark during the last 10 - 15 years can be regarded as stable, but with a slight downward trend. In 2008, the total number of cormorant nests counted in

Denmark was 33,700 distributed among 57 colonies (Appendix 9.1). A country-wide survey of the feed of cormorants during the nesting period was undertaken during 1992-1994. In 1994 when the number of birds was the same as today, cormorant's regurgitate examined during the nesting period revealed that the cormorants ate approx 141 tonnes of eel, equivalent to 27 % the official fishery for yellow eel, which at that time was 525 tonnes (Hald Mortensen 1995). In the period 2004-06 the official catch of yellow eel was 153 tonnes. Using the identical percentage would suggest that the cormorants ate approx 41 tonnes of yellow eel. The figure only includes predation during the nesting period and the real figure may therefore be twice as large: 80 tonnes. The colonies are situated along the coastline and feed is mostly taken in marine water.

## 2.4 Parasites and contaminants

*Anguillicola crassus* (swimbladder nematode worm) is widely distributed in fresh and marine waters. The parasite is found in one out of three eels. (Pedersen, 2004).

No systematic contamination studies have been conducted. However available data suggests that the contamination burden in eels is below or in a few areas very close to the levels set for human consumption. Restriction on consumption is currently in force in only one river system, Grindsted Å, due to heavy metal (Hg) contamination in the 1970s.

## 2.5 Total anthropogenic and natural mortality

**Table 4.** Mortality of eel due to fishery or other factors in 2004-06.

	<b>Freshwater (tonnes)</b>	<b>Marine (tonnes)</b>
Fisheries	App. 31	App.667
Cormorants	Not known	App.80
Hydropower	Not known	-
Trout farms	Not known	-
Other	Not known	Not known
<b>Total</b>	<b>Approx 31</b>	<b>Approx 747</b>

## 2.6 Potential escapement of silver eel from freshwater river basins

The present area of inland waters, where eel may be found, is approx. 15,000 ha. of running water and 45,000 ha of lakes. Historic information suggests that before draining and land reclamation took place (during the 18<sup>th</sup> and 19<sup>th</sup> century), inland waters (i.e. permanent and temporary areas) covered 25% relative to the total Danish land cover. The present inland waters of 60,000 ha cover approx 1 % of the present landmass.

In determining potential silver eel escapement prior to the 1980s surveys using production models and mark-recapture studies have been drawn upon.

### *Silver eel production in Danish streams*

Silver eel production in Køge Lelling stream was estimated at about 105 kg /ha river (wetted area) (Rasmussen and Therkildsen, 1979). The estimate was based on the density of resident yellow eels, observed growth (derived from age reading) and mortality with data collected during the period 1965-1968. The estimate is therefore based on glass eel recruitment during the period from the late 1950s and early to mid 1960s, one eel generation earlier. The population in Køge Lelling stream consisted mostly of males with a mean silver eel weight of 100g. The experiment was undertaken in

the lowest part of the stream and downstream of a weir; the estimate therefore cannot be taken as representative of silver eel escapement for the catchment area as a whole, but only for the lower part of the river.

Silver eel production in River Brede was estimated at 49 kg/ha river (wetted area) (Nielsen, 1982). The silver eel were caught in the autumn 1981 using fyke nets. Escapement was estimated using mark-recapture and is thus based on the recruitment of glass eel during the period 1965-1975. The population of silver eel was 82% males and 18% females. The average weight of silver eels was 120g.

In 1988 silver eel production in the River Bjornsholm was estimated in the range of 9-39 kg /ha river (wetted area) (Bisgaard and Pedersen, 1990). Densities of resident yellow eel, observed growth rate (derived from age reading) and mortality produced an estimate of 39 kg /ha river (wetted area). This compares to an estimate of 9 kg /ha river (wetted area) from mark-recapture on silver eel carried out in August and September and should therefore be considered a minimum estimate of escapement. Sex ratios of silver eel were 40% males and 60% females. The average weight of the silver eels was 280g.

From the above studies it is suggested that 50 kg/ha (wetted area) represents “pristine” escapement for the freshwater environment. This translates into the 40% EU escapement target of 20 kg/ha (wetted area) of silver eel.

#### *Silver eel production in Danish lakes*

Silver eel escapement from lakes is estimated based on fisheries yield prior to 1980. Fisheries yields were then in the range of 3-5 kg/ha. Assuming a fisheries mortality of  $F = 0.5$  the production is roughly in the range of 6-10 kg /ha.

#### *Potential Silver eel escapement*

The potential silver eel escapement from freshwater in the absence of anthropogenic mortality is estimated at 1,110 tonnes prior to the 1980s. The figure is based on the present area of inland water. (Table 5).

**Table 5.** Potential Silver eel escapement prior to the 1980s.

Inland water	Area (ha)	Silver eel production (kg/ha)	Total production (tonnes)
Running water	15,000	50	750
Lakes	45,000	8	360
Total	60,000		1,110
40% escapement target			444

#### *Current Silver eel production*

There is no available data on the current silver eel production in inland waters. The total fisheries are estimated at 31 tonnes; total fisheries mortality is unknown. Based on the general trend in recruitment to Scandinavia it is assumed that one eel generation ago (mid 1990s) the recruitment was approx 10 % of the level before 1980. Current silver eel production in freshwater is thus assumed to be approx 100 tonnes.



### 3. Restocking

#### 3.1 Stocking as carried out in the past.

Stocking has been carried out for several decades by landowners for stock enhancement purposes in lakes where recruitment of young eel was limited or absent. Since 1987 all stocking activities have been administrated by the Ministry of Food, Agriculture and Fisheries and funded mainly through resources generated from selling recreational fishing and angling permits.

**Table 6.** Restocking of young eels (2 -5 g) in saltwater and fresh water from 1987 – 2008, numbers in millions.

Year	Marine	Lake	River	Total	Year	Marine	Lake	River	Total
1987	0.07	0.26	1.26	1.58	1998	2.35	0.53	0.1	2.98
1988	0.11	0.24	0.4	0.75	1999	3.38	0.56	0.18	4.12
1989	0	0.24	0.17	0.42	2000	3.02	0.55	0.25	3.83
1990	2.46	0.49	0.51	3.47	2001	1.2	0.38	0.12	1.7
1991	2.3	0.44	0.32	3.06	2002	1.66	0.47	0.3	2.43
1992	2.94	0.81	0.11	3.86	2003	1.54	0.49	0.22	2.24
1993	2.97	0.76	0.23	3.96	2004	0.52	0.18	0.06	0.75
1994	6.12	0.61	0.67	7.4	2005	0.24	0.06	0	0.3
1995	6.83	0.72	0.9	8.44	2006	1.15	0.35	0.1	1.6
1996	3.58	0.58	0.44	4.6	2007	0.59	0.21	0.02	0.83
1997	2.02	0.29	0.22	2.53	2008	0.52	0.19	0.04	0.75

A permit fee from the recreational fishermen forms the financial basis for stocking eels in Denmark. A fisheries advisory board (§7) determines the amount of money available for stocking of eels and the quantity that should be stocked in marine and in freshwater.

A tender is circulated among Danish eel farmers to deliver 2-5 g eel for stocking purposes. Those farmers offering the lowest price will be offered a contract to deliver eels during the summer period of June-August anywhere in Denmark, according to a stocking plan made by DTU Aqua. The stocking plan provides details on quantity, place and time for the eels to be stocked.

Before the eels are delivered for stocking, they are examined by the National Veterinary Institute (DTU) for IPN, VHS, IHN viruses and parasites of *Anguillicola crassus*. If the eels are detected positive for IPN virus or *Anguillicola crassus*, the eels will be excluded from the stocking programme. Two or three eel farmers are usually given a contract to supply eels for stocking.

#### *Stocking place and quantity*

In 2008 a total of 0.75 million eels of 2-5 g were stocked (Table 6). The number of eels stocked in lakes and rivers was 0.23 million. In marine waters 0.52 mill eels were stocked in shallow waters e.g. bays, fjords and protected coasts. The eels are distributed throughout the country according to an annual stocking plan aimed at covering all potential eel habitats within a 3 year period.

#### *Origin of glass eel for stocking*

Danish eel farmers usually purchase glass eels from France. Depending on the market price, the United Kingdom, Spain, Portugal and North Africa are other possible source countries.

#### *Stocking densities*

Prior to any stocking activity, a detailed stocking plan is designed. The plan considers the suitability of the water with regard to natural food availability and hiding places for the stocked eel. The stocking densities for different habitats are given below:

- Lakes 100-600 eel (2-5 g) pr. ha and only above the thermo cline
- Marine areas 300 eel (2-5 g) pr. ha in areas with a water depth of 0-4 m.
- Rivers 1 eel (2-5 g) per 7 m<sup>2</sup>.

*Result of stocking in weight and number of Silver eels*

The expected output of silver eels from stocking has been calculated using a cohort analysis with input data on growth, mortality and migration from surveys of eel population dynamics (Rasmussen and Therkildsen 1979, Sparre 1979, Bisgaard and Pedersen 1990, Pedersen 1998). The key parameters are: the growth rate of yellow eel usually follows a Von Bertalanffy growth curve, but the growth in length is set to a constant rate of 5 cm per year for the length range 7 to 33 cm, and 3 cm per year for length range 33 cm to 100 cm; instantaneous mortality  $M = 0,5 W^{(-1/3)}$ , where  $W$  = weight in g (modified after Ursin 1967). The rate of silvering for female eels  $U = (L-33)^4 * 0,000002$ , where  $L$  is length in cm modified according to Sparre (1979). Empiric data for the rate of silvering from a cohort of male eels is used for this gender. From a cohort of female eels and a cohort of male eels the output of silver eels is calculated assuming different sex ratios.

The number of eels needed to produce 1 tonne of silver eel assuming 50% female and 50% male eel is 22.000 2-5 g eel.

## 4. Monitoring

### 4.1. Methods for determining actual silver eel escapement.

The actual escapement from a river system may be achieved by 1) trapping silver eels when they leave the river system or 2) using yellow eel densities or recruitment as proxies to model the escapement e.g. by cohort analyses. These models will have to be further developed.

From the 887 Danish river systems it is relevant to select a number of index systems where monitoring of escapement can be done, and to use data from these index systems to calculate total silver eel escapement from the Danish freshwater territory.

- DTU Aqua suggests selecting e.g. 3 different river basins and for each of these river basins counting the number of silver eels leaving the river system by trapping. The count should be repeated every three years. To further develop cohort models which can predict the output of silver eels, population density data on new recruits (glass eel) or older yellow eels will be compiled in these river basins and a relationship between the density of yellow eel and silver eel output will be established.
- Existing monitoring includes recruitment surveys (pass traps and electro fishing) at three different river basins giving a relative index on the recruitment of young eel to the Danish inland waters. These surveys are ongoing and will be expanded by 2-3 more river basins in 2009.
- Other monitoring may include mortality estimates from fisheries, hydropower and predation.

### 4.2. Sampling system for catches and effort analysis.

With respect to Regulation (EC) No 1639/2001 length measures have been recorded at various locations since the beginning of the 1990s, but not as part of a routine monitoring/sampling programme. The data has only been represented in journals and working groups.

The Commission's amending Regulation (EC) No 1581/2004 requires one sample of a hundred specimens for each 20 tonnes landed eel to be age, length and gender measured. The samples in the Danish programme will be collected from primary catch areas, covering marine and freshwater fisheries, ICES Fishing Areas IVb – IIIId. On locations with both yellow and silver eel fishery one sample from the summer fishery of yellow eel and one sample from the autumn fishery of silver eel will be collected and analysed. From pure silver eel fisheries only one sample will be collected and analysed. The size range of any sample will be selected to be representative of the total catch for the fishing area in concern. The samples will be bought from the fishermen and brought to the laboratory for length and age analysis. This will possibly be in cooperation with other Baltic countries, as a significant component of the Danish catch of silver eels comes from the Baltic Sea.

As described in Section 5.1 and Chapter 6, data for effort and catches will be collected and allow analysis of CPUE and trends in relative eel stocks and densities.

### 4.3. Traceability.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix II/Annex B listing for *Anguilla Anguilla* comes into force on 13th March 2009. As the major range

states for this species, as the proponents of the CITES listing and as the major exporters of the species, Denmark finds it vital that that the EU implements this listing properly.

Danish fisheries, food safety and environmental authorities await the final outcome of the ongoing negotiations regarding the details of the CITES listing for European eel. Danish authorities are prepared to follow the guidelines specified by CITES, and implement adequate provisions in accordance with Article 5 of EC Council Regulation 338/97.

All live eel imported to Denmark for the purpose of aquaculture production, restocking or potential re-export must be accompanied by a relevant proof of origin certificate in compliance with national<sup>3</sup>, regional and international trade legislation.

Yellow and silver eel caught by commercial fishermen in Danish waters and landed in Denmark must be registered with the Directorate of Fisheries in accordance with Council Regulation (EC) No. 1100/2007 and the legislation described in this plan. All exporters of fish and fish products must be registered with the relevant authorities and comply with international food trade legislation in accordance with Article 5.7 of the CITES Regulation 338/97.

There are reportedly imports of live European eels from North Africa into the EU. Such imports will be addressed under Article 4.2.a of the CITES Regulation 338/97, once the CITES listing comes into force.

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<sup>3</sup> The Danish Veterinary and Food Administration (DVFA) provision no. 755 of July 28. 2005, on contagious diseases in fish. And DVFA provision no. 856 of September 12. 2000, on trade with products and live animals from aquaculture production within the European Union (EU) and import from third countries.(In Danish)

## 5. Measures

In order to meet the 40% escapement objective for inland fresh water, in accordance with Article 2 of the Council Regulation (EC) No. 1100/2007, the Danish Eel Management Plan incorporates the introduction of a framework for effectively managing a reduction in fishing effort to the extent necessary, management measures for mitigating structural eel mortality, improving habitat conditions and a detailed plan for re-establishing eel stocks. The Plan also integrates a number of initiatives, management tools and development projects aimed at strengthening the quality and quantity of eel data.

This plan introduces a license system which limits each fisherman or entity fishing for commercial purposes to a limited number of gear and or fishing season and thus a limited effort. The system includes a variety of elements, routine compulsory registration and reporting and tangible measures for strengthened control efficiency, providing managers and researchers with comprehensive and reliable data for monitoring, analysis and adequate management of both commercial and recreational eel fishing activities.

Denmark considers the management of European eel to be an adaptive process which can be enhanced as information and knowledge on eel, and eel migration strengthens over time.

### 5.1 Measures in inland freshwater.

Given the relatively healthy state of Danish inland waters and the relative low eel mortality rates estimated in conjunction with structural obstructions, the focal point in drafting the management plan has been the construction of a framework for substantial reductions in fishing effort, encompassing seasonal closures for recreational fishing activities and the establishment of a licence-based commercial fishery in both fresh water and marine water. It is a framework which enables managers, scientists, inspection staff and fishermen to adequately address issues of effort reduction, eel recovery, fisheries feasibility and rule compliance.

### 5.2 Fisheries

Denmark foresees that it could be necessary to phase out fishing activities in fresh water. Initially, a series of regulatory measures are introduced in the period 2009-2013. Further reductions may be implemented pending ongoing and planned stock monitoring activities and the results of the 2012 evaluation as described in Article 9 of the Council Regulation.

Table 7 illustrates the general measures for reduction and registration of eel fishing effort in all freshwater areas introduced in accordance with this plan:

All measures regarding the licensed commercial eel fishery will be introduced on July 1<sup>st</sup> 2009. Measures for recreational eel fishing activities will be introduced on February 1<sup>st</sup> 2009.

There currently is only limited data available on the eel fishing effort in freshwater streams and lakes. There is no registration of the number and types of gear used; there is only limited knowledge on the number of landowners and recreational fishermen involved in eel fishing activities.

**Table 7.** Measures in inland fisheries.

Legal size/ Gear/ Season/ Selectivity/ Effort registration	Current eel regulation	Eel fisheries regulation in accordance with Danish Eel Management Plan <sup>4</sup>
<b>Legal size</b>	<ul style="list-style-type: none"> <li>45 cm minimum legal size for yellow eel.</li> </ul>	<ul style="list-style-type: none"> <li>45 cm minimum legal size for yellow eel</li> </ul>
<b>Gear</b>	<ul style="list-style-type: none"> <li>Fyke nets, eel traps, pound nets, seine nets, long lines, eel pots and varieties of spears and rods allowed.</li> <li>No limits on the number of gear.</li> <li>Minimum 100 m distance between fyke- or pound nets.</li> <li>Only eel traps are registered with the Directorate of Fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>Only fyke nets, pound nets, eel traps, long lines and fishing rods are allowed for eel fishing.</li> <li>Eel traps must be made unable to catch eel by 31<sup>st</sup> December 2013.</li> <li>For licensed commercial fishing activities the number and type of gear must be at 2007 level or lower.</li> <li>Minimum 100 m distance between fyke- or pound nets.</li> <li>Type, size and position coordinates of all pile fixed fyke nets, pound nets and eel traps must be registered with the Directorate of Fisheries prior to use.</li> </ul>
<b>Fishing season</b>	<ul style="list-style-type: none"> <li>No time limits on fishing activities in lakes</li> <li>Eel traps allowed in operation throughout the year from sunset to sunrise, except for the period 1st March to 31st May.</li> <li>Fyke nets in streams allowed from 1<sup>st</sup> June – 30th November.</li> </ul>	<ul style="list-style-type: none"> <li>In lakes, only licensed commercial fishermen are allowed to use a limited number of fyke and pounds nets designed to catch eel in the period between October 16<sup>th</sup> and July 31<sup>st</sup>.</li> <li>Eel traps allowed in operation only from sunset to sunrise, in the period August 1<sup>st</sup> until October 15<sup>th</sup>.</li> <li>All fishing activities with fixed nets in streams are restricted to the period August 1<sup>st</sup> until October 15<sup>th</sup>.</li> <li>All eel caught for recreational purposes in fixed gear, between October 16<sup>th</sup> and July 31<sup>st</sup>, must immediately be returned to the wild.</li> <li>Depending on stock developments all eel fishing activities may be phased out by 31<sup>st</sup> December 2013.</li> </ul>
<b>Selectivity</b>	<ul style="list-style-type: none"> <li>Minimum 32 mm (full mesh) mesh size (10x10 cm) window in rear fyke bag.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum 32 mm mesh size (14x14 cm) window in rear fyke bag.</li> <li>All fyke nets and pound nets used in lakes, by non licensed fishermen, outside the period allowed for eel fishing must be fitted with a mesh window, hindering the catch of eel.</li> <li>Gear must be presented for, registered with and approved by the Directorate of Fisheries.</li> </ul>
<b>Catch registration</b>	<ul style="list-style-type: none"> <li>All commercial catches must be reported to the Directorate of Fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>All commercial catches and effort information must be reported frequently to the Directorate of Fisheries, according to specifications in license.</li> <li>Historic catch data and effort must be reported to the Directorate of Fisheries in license application.</li> </ul>

<sup>4</sup> See appendix 9.9 Eel Regulation in accordance with the Danish Eel Management Plan. (In Danish)

### *Commercial Fishing*

From 1<sup>st</sup> July 2009 all commercial eel fishing operations will be license based, and all permanent eel traps and permanent pound net structures must be registered with the Fisheries Directorate. Applications for licenses must be registered before 16<sup>th</sup> February 2009. All applications must include information on fishing effort, catches and gear in the period 2004-2007. The Directorate of Fisheries provides the relevant application. All licenses will be publicised on the Directorate's website.

For freshwater licenses the following conditions apply:

- Only fishermen and entities with reported and registered eel catches of a minimum total of 600 kg or 30,000 DKK. in the reference period 2004-2006 and a minimum of 200 kg or 10,000 DKK. in 2007 are eligible for commercial eel fishing licences. An estimated 10 fishermen / entities will be eligible for licenses.
- Licences are non-tradable and non-transferable. Licenses are annulled if fishing activities cease.
- The license allows only for a maximum level of fishing activity equal to the effort documented in 2007. Fishermen and entities are not allowed to increase the number of gear.
- Only the following gear types are allowed in fresh water eel fishing: fyke nets, pound nets and eel traps.
- With regard to the protection of the European eel and any other elements undertaken by the Law on Fisheries, the Directorate of Fisheries decides on the final number and type of gear included in each license.
- Type, size and position coordinates of pound nets and eel traps used must be registered at the Directorate of Fisheries prior to use.
- Effort and catch records must be reported to the Directorate of Fisheries.
- Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.
- Licences expire on 31<sup>st</sup> December 2013.

### *Recreational fisheries*

Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.

Based on an analysis of eel stock developments, Danish fisheries authorities will decide whether or to what possible extent recreational fishing activities in fresh water could continue by 31<sup>st</sup> December 2013.

## 5.3 Obstructions to migration

The Directorate of Fisheries currently routinely controls eel passes and their functionality. In cooperation with relevant environmental authorities and scientists the Directorate of Fisheries controls and monitors the effectiveness of eel passes, bypasses and similar mitigating installations

stipulated in freshwater legislation. This process will be continued in 2009. The results of the review will be processed in collaboration with relevant authorities, scientists and stakeholders. Based on recommendations in the review conclusions, existing legislation and control procedures may be adjusted in order to more adequately secure the unhindered migration of eel and other migratory species.

#### 5.4 Hydropower

The Directorate of Fisheries controls mitigating installations on all 61 hydroelectric power stations in Denmark. The results from this ongoing work will be processed in collaboration with relevant authorities, scientists and stakeholders. Based on recommendations in the review conclusions, existing legislation and control procedures may be adjusted in order to more adequately secure the unhindered migration of eel and other migratory species.

In order to adequately address the efficiency of existing regulation on screens, bypasses and fish ladders with respect to eel mortality, efforts will be made to generate relevant data and knowledge.

#### 5.5 Aquaculture

In collaboration with municipal environmental authorities, the Directorate of Fisheries will in 2009 instigate an intensified control and review programme for aquaculture production units using “flow through” water intake systems. The results of the review will be processed in collaboration with relevant authorities, scientists and stakeholders. Based on recommendations in the review conclusions, existing legislation and control procedures may be adjusted in order to more adequately secure the unhindered migration of eel and other migratory species.

Over recent years, the Ministry of Food, Agriculture and Fisheries, scientists and commercial partners have intensified efforts for improving quality and environmental sustainability in aquaculture production. This process will continue.

In order to adequately address the efficiency of existing regulation on screens with respect to eel mortality in aquaculture, efforts will be made to generate relevant data and knowledge.

#### 5.6 Predators

In collaborating with relevant authorities, stakeholders and scientists, the Ministry of Food, Agriculture and Fisheries will continue ongoing management, monitoring and research programmes related to predator impact on fish stocks, including European eel. If recommended, additional regulatory measures within the framework of national and international law may be further explored in regards to predatory birds and sea mammals.

The Ministry of the Environment is responsible for the administration of Danish cormorants within the framework of the Council Directive on the Conservation of Wild Birds. (Council Directive No. 79/409/EEC and Council Directive on the conservation of natural habitats for wild fauna and flora.)

In the ongoing revision of the Danish Cormorant Management Plan, possible measures to reduce eel mortality caused by cormorants have been included in conjunction with Article 2 in the Council Regulation.



### 5.7 Parasites and contaminants

In collaboration with the National Veterinary Institute (DTU) and DTU Aqua, the Directorate of Fisheries will continue current procedures for testing stocking eel for IPN, VHS, IHN viruses and parasites of *Anguillicola crassus*, as described in section 3.1.

Current monitoring of the spread of *Anguillicola Crassus* in wild eel will continue.

In order to adequately address the effect of *Anguillicola crassus* and contaminants on wild eel, especially silver eel, efforts will be made to generate relevant data and knowledge and possibly introduce adequate measures, in order to limit further contamination.

### 5.8 Eel habitats

The Water Framework Directive is being implemented in river basin management in Denmark improving the habitat for eels.

The Ministry of Environment aims to reduce nutrient flows from soil to river basins. This is being done by re-establishing formerly drained lakes and meadows. The aim is to establish 8,800 ha by eliminating drain pipes, drain ditches and/or removing pumping stations. By the end of 2007, 5,300 ha were already established, and funding was secured for an additional 3,400 ha.

These areas are premium growth areas for eels and with increasing recruitment/re-stocking of young eels these areas may constitute a significant contribution to the production of silver eel. Assuming a production of 8 kg per ha, the escapement from these areas would be 70 tonnes of silver eel.

### 5.9 Restocking

Table 8. contains rivers to be stocked as part of the management plan. The rivers have been chosen based on their direct migration route from the rivers to the Sargasso Sea. The coastline where the rivers enter the marine area has no silver eel fisheries.

The rivers contain some weirs due to trout farms and hydro power stations. However, there are protective screens of 10 mm installed with 10 mm screens in front of the turbines. The downstream migration of silver eel is aided by bypass channels or water overflow at the weirs, making downstream migration feasible.

As described in section 3.1 restocking activities are coordinated and managed by the Ministry of Food, Agriculture and Fisheries and financed through the funds generated from selling recreational fishing and angling permits. The rapid decline in glass eel inflow to Europe indicates that prices for stocking eel may continue to rise throughout the primary phase of this plan.

In order to secure that the above plan for restocking is carried through, the Ministry intends to apply for funds from the European Fisheries Fund in accordance with Article 38 in Council Regulation (EC) 1198/2006.

**Table 8.** Freshwater systems where stocking could take place

Escapement route	River	Catchment	Wetted area	Stocking area	# 2-5 g eel	Silver eel escapement
Name	Name	km <sup>2</sup>	ha	ha		kg
Kattegat	Grenå	484	81	56	79,310	2,644
Kattegat	Hevring Å	28	7	6	8,574	286
Kattegat	Gerå	163	18	12	17,491	583
Kattegat	Voer Å	245	37	21	29,437	981
Kattegat	Sæby Å	111	18	9	12,147	405
Kattegat	Bangsbro Å	31	5	1	1,429	48
Kattegat	Elling Å	143	21	4	6,288	210
Atlantic	Liver Å	303	28	13	17,863	595
Atlantic	Uggerby Å	363	45	35	50,587	1,686
Waddensea	Varde Å	1,090	192	90	129,039	4,301
Waddensea	Sneum Å	508	79	39	55,181	1,839
Waddensea	Konge Å	446	105	83	118,910	3,964
Waddensea	Brøns Å	112	14	8	10,718	357
Waddensea	Brede Å	473	76	28	40,652	1,355
Waddensea	Vidå	1,300	*187	92	150,696	5,023
Waddensea	Lake Rudbøl, Magister Kog	1,300	*187	48	28,800	960
<b>Total</b>			<b>915</b>	<b>544</b>	<b>757,120</b>	<b>25,237</b>

\*) Estimated by multiplying catchment area by 0.144 (Nielsen 1982)

### 5.10 Attainment of the 40% escapement target.

In accordance with the Council Regulation, the pre 1980s escapement target for Danish inland waters is estimated at 444 tonnes of silver eel, see Table 5. The current production of silver eels is estimated at approx 100 tonnes; this leaves a difference of 340 tonnes between the target and the current silver eel production.

Mortality due to fisheries is estimated at 31 tonnes (yellow and silver eel). Commercial fishermen account for more than 15 tonnes. Other mortality factors are unknown and have not been quantified. Cormorants do feed in fresh water, but most colonies are close to the coast where they feed in marine waters. Actual predation in fresh water is unknown.

Eel mortalities due to hydropower exist, but it is not known to what extent.

#### *Short-term effects*

Short-term effects will be generated from substantial reductions in fishing effort.

There will be a reduction in catches by non-licensed fishermen and entities using fixed gear in streams by an estimated 50% by reducing the fishing season from 6 to 2½ months. For eel traps the reduction in the fishing season is estimated to have an approx 49% reduction in catches, based on a reduction in the fishing season from 9 to 2½ months (see appendix 9.2).

Due to the enforced limited fishing season, licensed fishermen using mainly eel traps may experience a substantial reduction in catches depending on annual variations in water flow, silvering rates and lunar cycles.

The approximately 10 licensed commercial fishermen, not using eel traps, will be allowed to continue fishing activities at an effort equal to or below the level of 2007. However, the use of fixed gear in streams will be reduced from 6 to 2½ months, resulting in an estimated 50% reduction in both effort and catches.

In terms of catch reduction in fresh water, the short term (2009 – 2010) expected effect is a reduction of at least approx 8 tonnes, the equivalent of approximately 50% of total estimated catches by non-commercial fishermen.

#### *Medium-term effects*

Re-stocking will be carried out in rivers and lakes where no current registered fishing or hydro-power activity can cause mortality in the stocked fish. The stocking protocol according to this plan follows past stocking procedures as described in Section 3.1. Stocking restricted to freshwater basins with an escapement route directly to the spawning sites may contribute approx 25 tonnes with a time lag of 15 years between stocking and escapement.

By December 31<sup>st</sup> 2013 all use of eel traps for eel fisheries must cease, contributing a further estimated 3 tonnes to the escapement of silver eels. Furthermore, on December 31<sup>st</sup> 2013, the newly introduced regulation ends. Before this date Danish fishing authorities will have decided on whether and to what possible extent eel fishing activities may continue in accordance with the 40% target stated in the Council Regulation. A phasing out of freshwater eel fishing activities would contribute an estimated additional 31 tonnes to the escapement (Table 1.)

#### *Long-term effects*

As stated earlier, the difference between the estimated EU escapement target and the actual silver eel production is approx 340 tonnes. To meet the target within one eel generation of approx 15 years, it is necessary to stock 3 - 4 tonnes of glass eel per year, combined with the termination of all eel fishing activities in fresh water and free (non-fisheries) migration routes along the coastline towards the Sargasso Sea. Based on recent developments in glass eel recruitment and trade, an amount this size of glass eel for stocking is unlikely to be obtained or financed through national and possible EU funds. The long-term effect of the Danish Eel Management Plan thus depends on an increase in natural recruitment. Once the Eel Management Plans have been implemented across Europe and intensified re-stocking programmes have been in place for more than one eel generation, increased recruitment may possibly be detected within Danish eel habitats.

The different measures regarding mitigation of structural eel mortality may have a positive contribution towards minimizing eel mortality, and securing silver eel escapement. The implementation of the Water Framework Directive may have further added to improved habitat conditions in Denmark and across Europe. However, the production of silver eel in Denmark requires recruits and not just growth habitats in either fresh or marine water.

In the longer term, beyond one eel generation, the possible recovery of European eel may depend on factors not discussed in this plan. Possibly throughout the process of drafting the Council Regulation, it may depend on factors which may call for the development of new and more effective measures securing unhindered eel migration from habitats to spawning grounds and back, and underlining that the possible recovery of the European eel is dependent on effective and adaptive management and management plans.

### 5.11 Marine fisheries

As described in Section 5.1, the focal point in drafting the management plan has been the construction of a framework for substantial reductions in fishing effort, encompassing seasonal closures for

recreational fishing activities and the establishment of a licence-based commercial fishery in both fresh water and marine water. A framework that enables managers, scientists, control officers and fishermen to adequately address issues of effort reduction, eel recovery, fisheries feasibility and rule compliance.

This Plan introduces a license system, which limits each fisherman and entity to a limited number of gears and or fishing seasons, and thus a limited effort. The system includes a variety of elements, routine compulsory registration and reporting and tangible measures for strengthened control efficiency, providing managers and researchers with comprehensive and reliable data for monitoring, analysis and adequate management of both commercial and recreational eel fishing activities.

By introducing a series of regulatory measures, Denmark aims at reducing effort in marine eel fisheries in the period 2009 – 2013 by at least 50% relative to the average effort deployed from 2004 to 2006, in accordance with Article 8 of Council Regulation (EC) No. 1100/2007. Further reductions may be implemented pending ongoing monitoring activities and the results of the 2012 evaluation as described in Article 9 in the Council Regulation.

Developments connected to the deterioration of the European eel stock, fluctuations in the markets for eel and eel products and structural changes in the Danish fishing sector have resulted in a substantial reduction in marine eel fishing effort in the time span from the reference period 2004-2006 up until now. These reductions are described in detail in Section 5.12.

Table 9 illustrates the general measures for reduction and registration of eel fishing effort in marine waters introduced in accordance with this plan.

All measures regarding the licensed commercial eel fishery will be enforced from 1<sup>st</sup> July 2009. Measures for recreational eel fishing activities will be enforced from 1<sup>st</sup> February 2009.

Currently there is only limited data available on eel fishing effort in marine waters. There is no registration of the number of fyke nets, long lines and other types of gear used by commercial or recreational fishermen. Only the number of gear fixed on piles is registered. There are also indications that catch data is incomplete.

In order to adequately manage both commercial and recreational eel fishing activities in marine waters, detailed data on and mapping of eel fishing effort are required.

**Table 9.** Measures in marine fisheries.

Legal size/ Season/ Selectivity/ Gear / Effort registration	Current eel regulation	Eel regulation in accordance with the Danish Eel Management Plan <sup>5</sup>
<b>Legal size</b>	<ul style="list-style-type: none"> <li>Minimum legal size for yellow eel ranges from 29.5 cm to 38 cm.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum legal size for yellow eel will be step wise increased as described in appendix 9.6 (In year 2013 the legal size ranges from 38 cm to 40 cm.)</li> </ul>
<b>Fishing season</b>	<ul style="list-style-type: none"> <li>No season.</li> </ul>	<ul style="list-style-type: none"> <li>Only licensed commercial fishermen are allowed to use long lines, fyke nets and pounds nets designed to catch eel in the period from May 10<sup>th</sup> until July 31<sup>st</sup>.</li> </ul>
<b>Selectivity</b>	<ul style="list-style-type: none"> <li>No selectivity</li> </ul>	<ul style="list-style-type: none"> <li>Long lines will be banned from May 1<sup>st</sup> until September 30<sup>th</sup> for recreational fishermen.</li> <li>All fyke nets and pound nets used for non licensed fishing activities, targeting species other than eel must be fitted with mesh windows or square openings throughout the fyke, hindering the catch of eel.</li> </ul>
<b>Gear</b>	<ul style="list-style-type: none"> <li>No limits on number and type of gear/units for commercial fishermen.</li> <li>Fyke nets, pound nets, seine nets, trawl, long lines, eel pots, a variety of spears and light enhancers allowed.</li> <li>Position coordinates of pound nets and other gear fixed on piles must be registered with the Directorate of Fisheries prior to use.</li> <li>Recreational fishermen are allowed to use a maximum of 6 fishing units: 6 long lines (600 hooks), 6 fyke nets (8 m leader) or 3 nets (max. 45 m). One fyke net can be fixed on piles and have a 40 m leader.</li> </ul>	<ul style="list-style-type: none"> <li>The use of trawl, seine nets, eel pots, spear, torchlight and all other gear not explicitly described as legal, will be banned.</li> <li>Long lines will be banned from 1st May until 30<sup>th</sup> September for recreational fishermen.</li> <li>Only fyke nets, pound nets, long lines<sup>5</sup> and fishing rods are allowed for eel fishing.</li> <li>Number of gear for all licensed commercial fishing activities must be equal to the level documented in 2007 or lower.</li> <li>Type, size and position coordinates of all pile fixed fyke nets and pound nets must be registered with the Directorate of Fisheries prior to use.</li> <li>Recreational fishermen will be allowed to use only 6 fyke nets or 3 nets during the fishing season. (The pile fixed fyke net will be banned)</li> </ul>
<b>Effort registration</b>	<ul style="list-style-type: none"> <li>All commercial catches must be reported to the Directorate of Fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>All commercial catches and effort information must be frequently reported to the Directorate of Fisheries, according to specifications in license conditions.</li> <li>Catch data and effort information (2004-2007) must be reported to the Directorate of Fisheries in license application.</li> </ul>

<sup>5</sup> Licensed commercial fishermen may be granted exemption, however only until December 31st 2013

### *Commercial Fishing*

From 1<sup>st</sup> July 2009, commercial eel fishing operations in marine waters will be based on licenses, and all gear must be registered with the Fisheries Directorate. Licenses are divided into three groups A, B, C. Applications for A, B and C licenses must be registered before 16<sup>th</sup> February 2009. All applications must include information on fishing effort, catches and gear in the period 2004-2007. The Directorate of Fisheries provides relevant application forms. All licenses will be publicised on the Directorate's website.

#### A-license:

For fishermen and entities with reported and registered eel catches of a minimum total of 600 kg. or 30,000 DKK in the reference period 2004 - 2006 and a minimum of 200 kg. or 10,000 DKK in 2007, the following conditions apply:

- The license only allows a maximum level of fishing activity equal to the effort documented in 2007. Fishermen and entities are not allowed to increase the number of gear.
- Licences are non-tradable and non-transferable. Licenses are cancelled if fishing activities cease.
- Only the following gear types are allowed in marine eel fishing: fyke nets, pound nets and longlines<sup>6</sup>.
- With regard to the protection of the European eel and any other elements undertaken by the Law on Fisheries, the Directorate of Fisheries decides on the final number and type of gear included in each license.
- Type, size and position coordinates of pound nets must be registered with the Directorate of Fisheries before use.
- Effort and catch records must be entered into the vessel "log book" and be registered with the Directorate of Fisheries in accordance with the conditions set out in the license.
- Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.
- Licences are provisionally issued until 31<sup>st</sup> December 2013.

#### B-license:

For fishermen and entities with reported and registered eel catches from documented fyke net fishing in the reference period 2004-2006 and in 2007, the following conditions apply:

- The license allows only for the use of up to 20 fyke nets.
- With regard to the protection of the European eel and any other elements undertaken by the Law on Fisheries, the Directorate of Fisheries decides on the final number and type of gear included in each license.
- Effort and catch records must be entered into the vessel "log book" and be registered with the Directorate of Fisheries in accordance with the conditions set out in the license.
- Licences are non-transferable.
- Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.
- Provisionally licences are issued until 31<sup>st</sup> December 2013.

#### C-license

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<sup>6</sup> On special conditions set by the Directorate of Fisheries and only until December 31<sup>st</sup> 2013.

For fishermen and entities with reported and registered eel catches from documented use of more than one pound net in the reference period 2004-2006 and in 2007, the following conditions apply:

- The license allows only for a maximum level of fishing activity equal to 50% of the number of pound nets registered with the Directorate of Fisheries in 2007.
- With regard to the protection of the European eel and any other elements undertaken by the Law on Fisheries, the Directorate of Fisheries decides on the final number and type of gear included in each license.
- Effort and catch records must be entered into the vessel "log book" and be registered with the Directorate of Fisheries in accordance with the conditions set out in the license.
- Licences are non-transferable.
- Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.
- Provisionally licences are issued until 31<sup>st</sup> December 2013.

### *Recreational fishing*

For registered recreational fishermen and commercial fishermen and entities not eligible for either an A, B or C license, the following conditions apply:

- The eel fishing season will be closed from May 10<sup>th</sup> until July 31<sup>st</sup>.
- All fishermen and entities will be allowed to use only a maximum of 6 fyke nets or 3 nets during the fishing season.
- The recreational pile fixed eel fyke net will be banned.
- Long-lines will be banned from May 1<sup>st</sup> until September 30<sup>th</sup>.
- Commercial fishermen and entities must register with the Directorate of Fisheries before beginning to fish.
- For commercial fishermen and entities catch records must be reported to and registered with the Directorate of Fisheries in accordance with the conditions set out for commercial fishing activities.
- Further reductions may be implemented pending ongoing monitoring activities, developments in the European eel stock and the results of the proposed 2012 evaluation.

### 5.12 Attainment of the 50% reduction in fishing effort

As illustrated in Section 5.11 the Danish Eel Management Plan includes a variety of management tools, a combination of which is the foundation for a comprehensive, tangible and effective regulation of fishing effort. A framework that enables managers, scientists, control officers and fishermen to adequately address issues of effort reduction, eel recovery, fisheries feasibility and rule compliance.

The arrangement includes a license system which limits each fisherman or entity to a fixed limited number of gears and / or fishing seasons and thus a limited effort. The system includes a variety of elements, routine compulsory registration and reporting and tangible measures for strengthened control efficiency, providing managers and researchers with comprehensive and reliable data for monitoring, analysis and adequate management of both commercial and recreational eel fishing activities.

Following the implementation of the licence system, other measures to reduce effort and a subsequent intensified control regime, rule compliances, catch registrations and reporting from fishermen and entities may increase. Danish Fisheries authorities will monitor the development closely. Should an increase in registered eel catches continue, the situation must be analyzed and advanced measures be considered.

Within the plan and concurrent national legislation, the means to take additional measures in order to further reduce effort and fishing activity have been reserved, should the expected output not materialize.

Following an analysis of the immediate results of the implementation of the license system for commercial eel fishing, the Ministry of Food, Agriculture and Fisheries may consider requesting funds for structural fleet adjustments in accordance with Council Regulation (EC) 1198/2006.

Denmark advocates that the measures taken in reducing fishing effort in marine waters through the introduction of an effort restricting license system for commercial eel fishing, increased minimum legal size for yellow eel, a ban on a number of gears and a seasonal ban on recreational eel fishing meet the reduction target stated in Article 8 of the Council Regulation. Expected comprehensive data on catches, gear and effort derived from the license application process is expected to qualify and quantify calculations and estimates presented below, supporting the arguments above.

With regard to meeting the 5-year 50% target stated in Article 8 of the Council Regulation, Denmark is confident that the measures implemented by means of this plan will substantially contribute, towards achieving a 50 % effort reduction in marine eel fishing activities.

#### *Minimum legal size*

The combined effects of increased minimum legal size and reduced effort are described in Appendix 9.3. Table 11. in Appendix 9.3 indicates that the introduction of legal minimum sizes combined with a 50% reduction in fishing effort results in a catch reduction of 21-35 % (biomass).

Figure 5. in Appendix 9.3 indicates that the above-mentioned measures will result in an increase in silver eel escapement of 100 – 250% from marine waters.

#### *Commercial fishing*

Developments connected to the deterioration of the European eel stock, fluctuations in the markets for eel and eel products and structural changes in the Danish fishing sector have resulted in a substantial reduction in marine eel fishing effort in the time span from the reference period 2004-2006 up to now. At present, and in conjunction with the implementation of this plan, these developments are expected to continue, resulting in further reductions in effort.

As illustrated in Appendix 9.7, registered reductions in the number of registered pound nets and other commercial pile fixed gear in the period 2004 – 2008 show an effort reduction of at least 15%. The data is incomplete and there are regional variations. However, there is a clear trend across the country indicating a substantial reduction. The reduction may be a result of declining catches or fluctuations in eel prices or market demands.

From July 1<sup>st</sup> 2009, the number of pound nets and other commercial pile fixed gear which have not been registered by A-licensed eel fishermen and entities will be reduced by at least 50 %.

Following the license application process, the Directorate of Fisheries will have a clear indication of eel catches in the period 2004-2007 conducted with registered pound nets and other pile fixed gear, including variations in the size of gear. A more precise estimate of the reduction in effort is thus achievable.

The number of fyke nets used by commercial fishermen and entities is currently unknown. It is estimated that the number is substantial and that there are great regional variations.

From July 1<sup>st</sup> 2009 the number of fyke nets not registered by A-licensed eel fishermen and entities will be reduced to a maximum 20 per fisherman, resulting in an expected substantial reduction.



Following the license application process, the Directorate of Fisheries will have a clear indication of eel catches in the period 2004-2007 conducted with fyke nets. A more precise estimate of the reduction in effort will thus be achievable.

The number of longlines used by commercial fishermen and entities is currently unknown. It is estimated that the number is substantial and that there are great regional variations.

From July 1<sup>st</sup> 2009 the use of longlines for eel fishing will be banned. The number of longlines not registered by A-licensed eel fishermen and entities eligible for temporary exemption from the ban until 31<sup>st</sup> December 2013 will be reduced to zero, resulting in an expected substantial reduction.

Following the license application process, the Directorate of Fisheries will have a clear indication of eel catches conducted with long lines in the period 2004-2007. Thus a more precise estimate of the reduction in effort is achievable.

After 31<sup>st</sup> December 2013 all use of longlines for eel fishing will be banned.

The number of seine nets and trawl used by commercial fishermen and entities is currently unknown, but it is estimated that the number is limited. On July 1<sup>st</sup> 2009 the use of seine nets, trawl and other gear for eel fishing will be banned, resulting in an expected substantial reduction.

Following the license application process the Directorate of Fisheries will have a clear indication of eel catches in the period 2004-2007 conducted with seine nets, trawl and other gear. Thus a more precise estimate of the reduction in effort is achievable.

From July 1<sup>st</sup> 2009 commercial fishermen and entities not eligible for A, B or C license will be reduced to using 6 fyke nets in the period August 1<sup>st</sup> to May 9<sup>th</sup> only. The number of fyke nets and unregistered pile fixed gear used by this group is currently not known.

After July 1<sup>st</sup> 2009 these fishermen and entities will have to register gear and catches with the Directorate of Fisheries, thus providing a foundation for the collection of comprehensive data on fishing effort.

### *Recreational fishing*

According to calculations on the effects of a reduced season for recreational eel fishing and a ban on the recreational pile fyke net according to this plan (see Appendix 9.4), the immediate effect from February 1<sup>st</sup> 2009 is a 50% reduction in catches for recreational eel fisheries.

There is no data on the current effort exerted by recreational longlines used in eel fishing, but the reduction achieved is estimated to be at a substantial level.

## 6. Control and Enforcement

6.1 Control and enforcement of regulations under the jurisdiction of the Directorate of Fisheries is conducted in accordance with national and EU legislation.

Within the framework of the above-mentioned, the following eel relevant registrations and authorizations are routinely carried out:

All commercial fishing vessels in marine waters are registered by the Directorate of Fisheries

All commercial fishermen and entities in both freshwater and marine waters are registered by the Directorate of Fisheries

All auction centres, fishermen and entities undertaking the first marketing of fish have been registered and authorized by the Directorate of Fisheries.

All commercial catches registered, landed and traded from Danish waters are registered by the Directorate of Fisheries.

All recreational fishing permits are acquired at and registered by the Directorate of Fisheries.

All angling permits are acquired at and registered by the Directorate of Fisheries.

All positions of pound nets and pile fixed fyke nets are registered by the Directorate of Fisheries

In conjunction with the implementation of measures described in this plan, the following additions to the above will be made:

Data on gear used for commercial eel fishing in the period 2004-2007 will be registered by the Directorate of Fisheries

All licenses and number and type of gear for licensed commercial eel fishing will be registered by the Directorate of Fisheries

All commercial catches registered, landed and traded and effort deployed by eel fishing licensees will be registered by the Directorate of Fisheries in accordance with license conditions.

All pound nets, fish traps and fyke nets used by commercial fishermen and landowners in freshwater will be registered by the Directorate of Fisheries

All fyke nets used by non-licensed commercial fishermen will be registered by the Directorate of Fisheries

The Directorate of Fisheries operates a comprehensive water and land borne fisheries control system, encompassing 7 de-centralised units operating in coastal zones and water bodies across the country as well as four inspection vessels. The Directorate employs a total of 260 members of staff. A number of trusted members of local fishing clubs have also been trained and authorized to conduct random control of recreational fisheries and angling in inland waters.

The Directorate of Fisheries operates a hot line, enabling citizens to report illegal fishing activities 24 hours a day.

Control units operate independently within the framework of an adaptive master plan managed by the central unit. On the basis of risk analysis, control teams conduct controls of commercial and recreational fishing and trading activities, often focusing on “hot spots” with a high concentration of fishing gear and/or fishing activities and relatively high risk of non-compliance. Control activities are scheduled to aim at peak fishing seasons for relevant species. The control of fishing and trading activities is also often carried out in coordinated collaboration with relevant tax, environment and food safety authorities.

In conjunction with the implementation of the Danish Eel Management Plan, the existing Danish National Control Plan will be further developed in order to include eel fisheries as a key element. Expanding models for risk analysis for both commercial and recreational activities, and the control of eel fisheries, eel trading and installations facilitating eel migration will be a high priority.

The implementation of eel fishing licenses, limitations on the number of gears and the ban on a number of gear types and catches provide a solid basis for comprehensive and effective control and enforcement of rule compliance with respect to commercial eel fishing activities in both marine and freshwater areas.

The implementation of a fishing season for recreational and non-licensed fyke net fishing provides control units with a set of simple and transparent tools for identifying illegal fishing gear and fishing activities.

In collaboration with scientists and stakeholders from all segments of the coastal fisheries, the Directorate of Fisheries has been granted funds from the European Fisheries Fund to conduct pilot test studies of the potential use of modern technology e.g. GPS and radio frequency chips, in control and fisheries monitoring operations. The project will be initiated in early 2009.

## **7. Modification of the Eel Management Plan**

The first phase of the Danish Eel Management Plan incorporates a number of initiatives, management tools and development projects aimed at strengthening the quality and quantity of data relevant to eel. Comprehensive data and data analysis are fundamental in assessing the status of the eel stock, estimating production and escapement and managing fishing effort. Denmark considers the management plan to be a living document and the management of European eel an adaptive process which can be enhanced as information and knowledge strengthens over time.

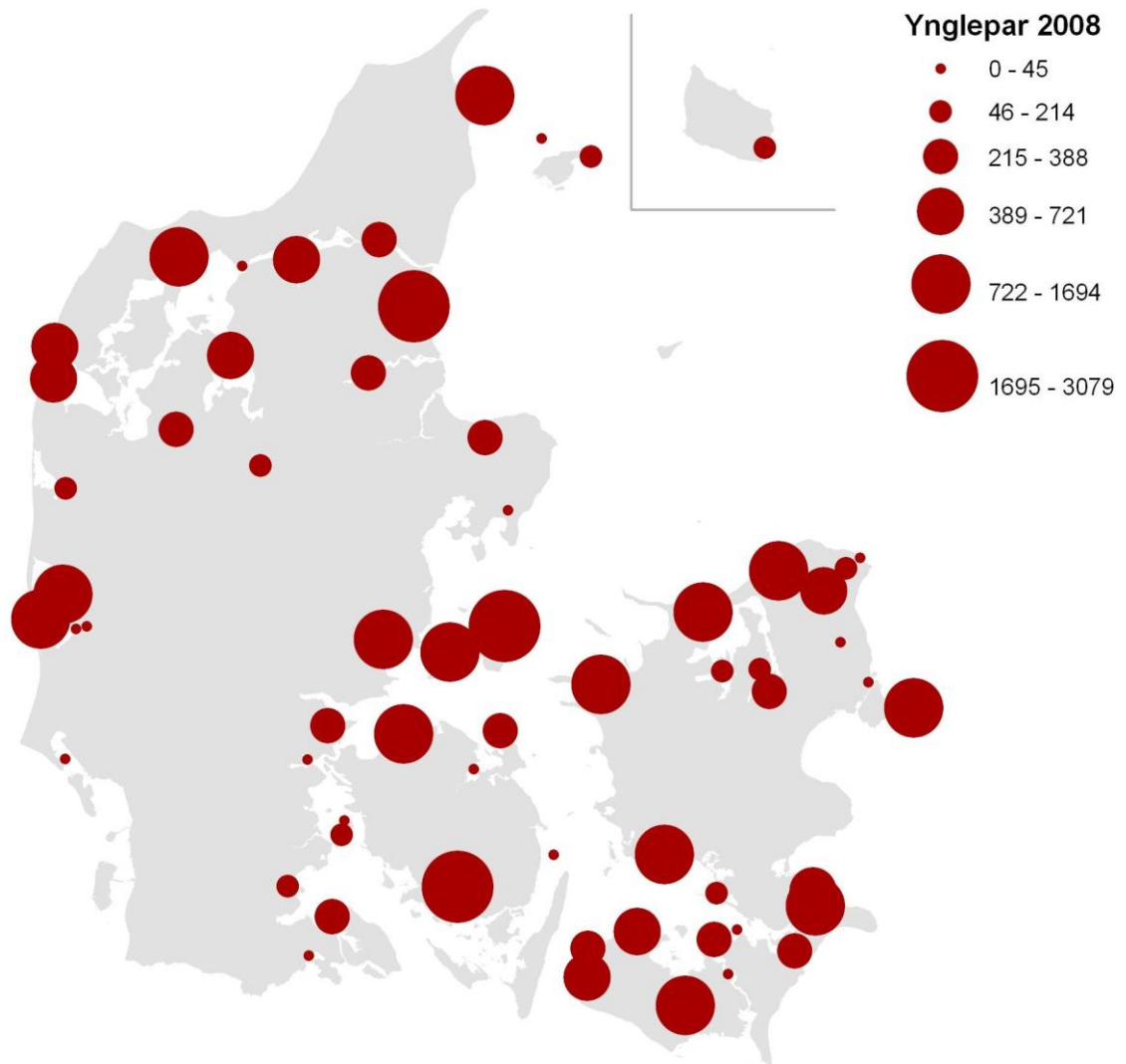
Once a number of the measures described for both freshwater and marine fisheries have been implemented, a large set of quantitative and qualitative data on fishing effort will be available for processing. Denmark expects this data to provide more detailed information on fishing activities and eel mortality, providing a solid foundation for future management measures and subsequent modifications to the Danish Eel Management Plan. Denmark considers the evaluation deadline of 30th June 2012, as described in Article 9 of the Council Regulation (EC) Nr. 1100/2007, to be a key milestone in securing adequate and effective measures for the recovery of the European eel stock.

## 8. References

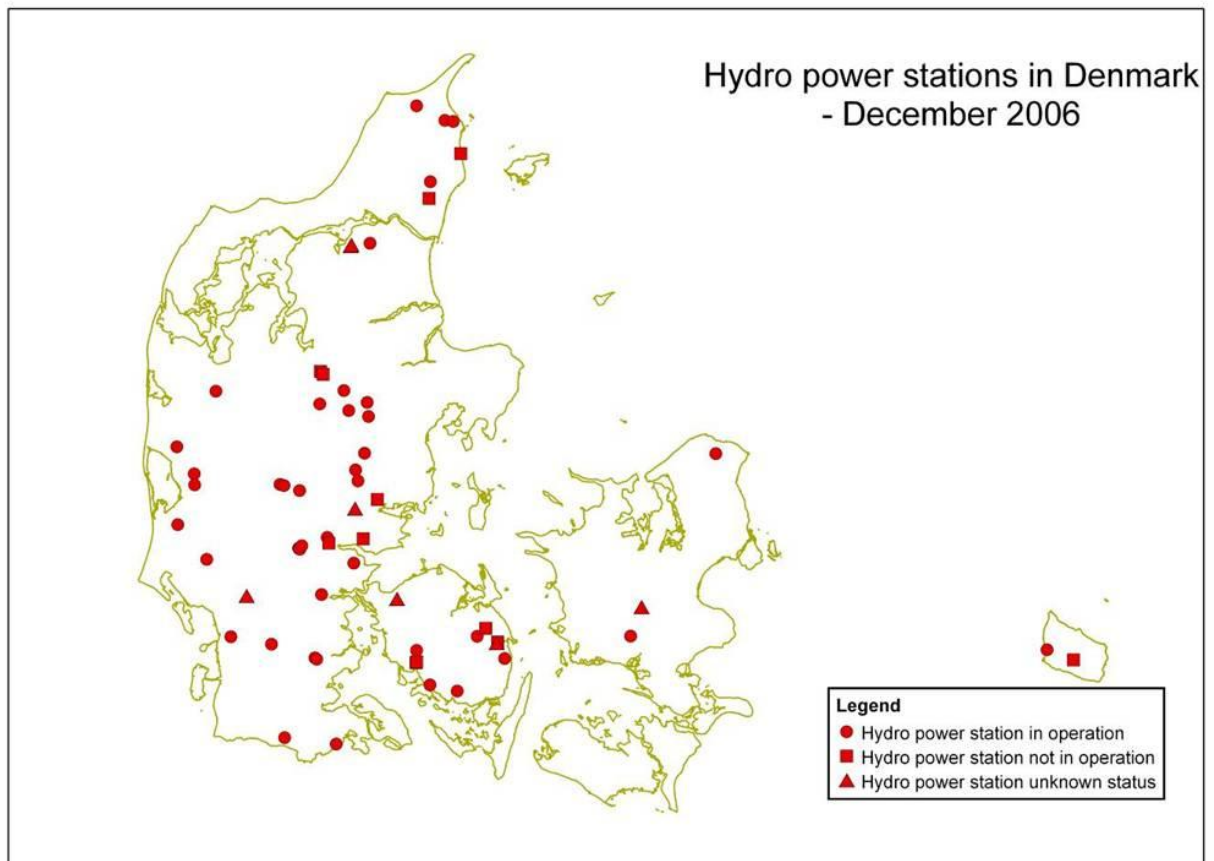
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## 9. Appendix

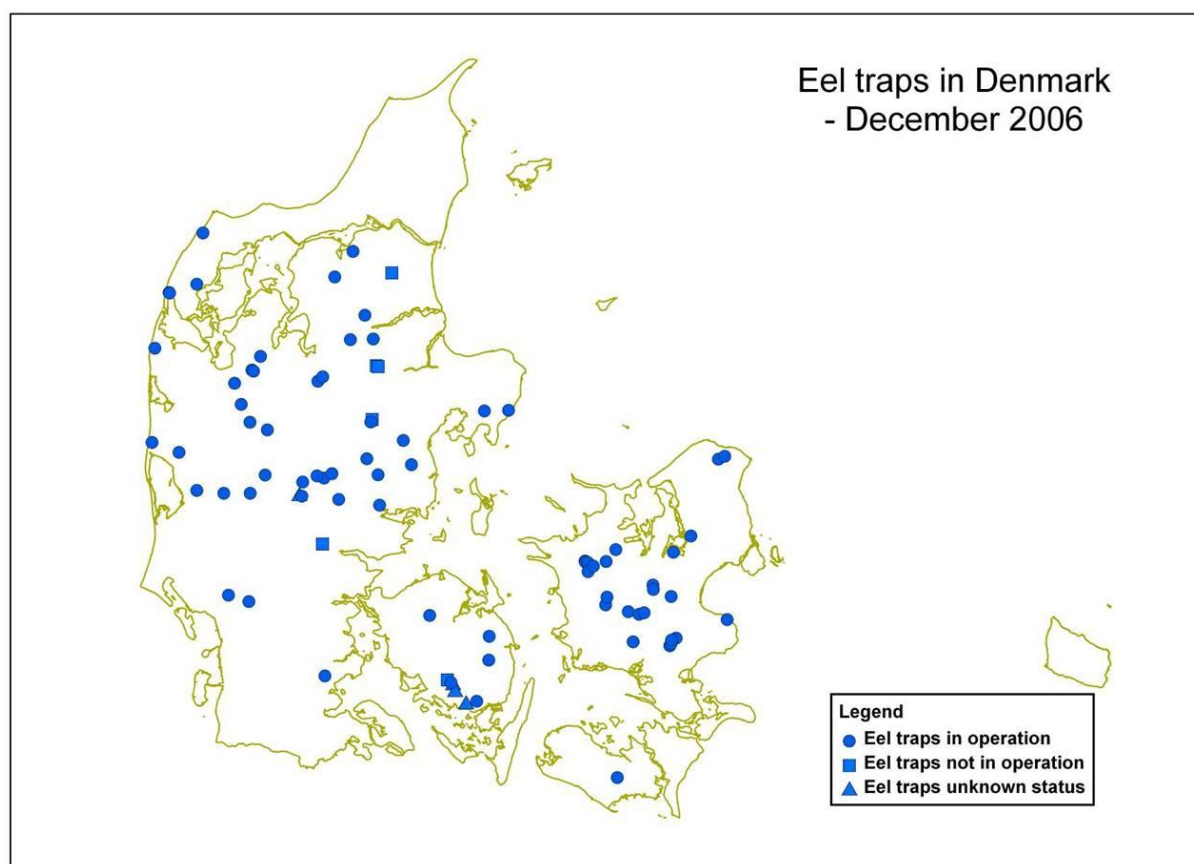
### 9.1 Maps: Cormorant colonies, Hydroelectric power plants, Eel traps



**Figure 1.** Location of colonies of cormorants and the observed number of nesting pairs (ynglepar) in spring 2008. Source: NERI, Aarhus University.



**Figure 2.** Location of hydroelectric power stations.



**Figure 3.** Location of eel traps in freshwater.

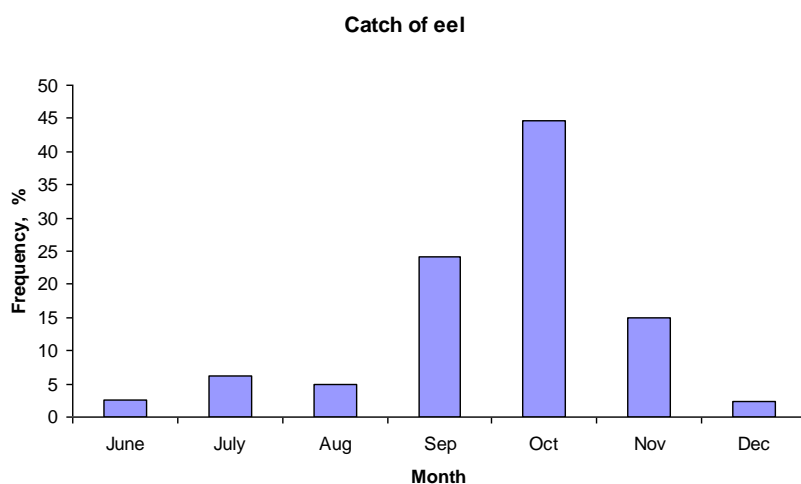


## 9.2 Catches in eel traps

The eel trap is only found in freshwater. It is constructed in such a way that all water falls on a screen, and eel above a certain size are withheld in the trap. At many locations the trap is constructed to cover the total width of a stream and is highly effective at catching eels. At present eel traps can be in operation throughout the year from sunset to sunrise except in the period from 1st March to 31st May.

Detailed catch records exist from an eel trap at Vestbirk Hydropower station in the River Gudenå. Data has been recorded by DTU Aqua since August 2001. The trap has been in operation during summer and autumn from early June/August and until December (Table 10)

The catch data shows that a closed season from October 15<sup>th</sup> to August 1<sup>st</sup> will result in a catch reduction of 48.5%.



**Figure 4.** Eel trap. Catch of silver and yellow eel at Vestbirk Hydropower in river Gudenå. Percent per month during 2001-2007. (See Table 10)

**Table10:** Catch in numbers of silver eels > 33 cm and yellow eel >45 cm at Vestbirk Hydropower station in river Gudenå.

<b>Year</b>	<b>Period of fishing</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Total</b>
<b>2001</b>	01.08 – 16.12	Not known	Not known	114	1888	698	403	14	3,117
<b>2002</b>	01.06 – 11.12	100	271	207	104	1883	218	19	2,802
<b>2003</b>	01.06 – 22.12	44	77	uk	142	93	770	122	1,248
<b>2004</b>	01.06 – 04.12	26	61	59	378	1037	130	6	1,697
<b>2005</b>	01.06 – 05.12	19	50	43	360	664	124	7	1,267
<b>2006</b>	06.08 – 10.12	Not known	Not known	106	118	912	173	61	1,370
<b>2007</b>	21.08 – 19.12	Not known	Not known	24	148	502	117	84	875
<b>2001- 2007</b>	<b>Average, #</b>	47	115	92	448	827	276	45	1,851
<b>2001- 2007</b>	<b>Average, %</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>24</b>	<b>45</b>	<b>15</b>	<b>2</b>	<b>100</b>

### 9.3 Change in legal size of yellow eel and effect on catch and escapement.

The minimum legal size of yellow eel in salt water is 35.5 cm on the open coast, and between 29.5 and 38.0 cm at certain locations. (Ringkøbing, Nissum and Stadil Fjord 29.5 cm; Limfjord 38.0 cm).

Sex ratios of eels in Danish waters change with the habitat. In general, the open coast has (0 – 10 % males), protected coast (20 – 30 % males) and Fjords (50 – 60 % males).

The objective was to examine the change in catches (yellow and silver eel) and the escapement of silver eels as an effect of an increase in the legal size for yellow eel.

#### Calculation model

Calculations were performed using cohort analyses with input data on growth, mortality and migration from different surveys of eel population dynamics (Rasmussen and Therkildsen 1979, Spare 1979, Bisgaard and Pedersen 1990, Pedersen 1998). Growth rates of yellow eel may usually follow a Von Bertalanffy growth curve. However, the Von B. growth curve describes those Yellow eels left behind, so we set growth in length to a constant rate of 5 cm per year for the length range 8 to 33 cm, and 3 cm per year for length range 33 cm to 100 cm; instantaneous natural mortality  $M = 0.5 W^{-1/3}$ , where  $W$  = weight in grammes (modified after Ursin 1967). For the rate of silvering for female eels we used  $U_f = (L-33)^4 * 0,000002$ , where  $L$  is length in cm modified after Sparre (1979). The rate of silvering of males relative to length ( $U_m$ ) was calculated from a catch curve of male eels. From a cohort of female eels and a cohort of male eels the output of silver eels is calculated assuming different sex ratios. Two scenarios were calculated: one for a male cohort and one for a female cohort. Sex ratios were then regulated by different recruitment to the two cohorts.

It is assumed that the current fisheries mortality is  $F = 0.3$ . In 5 years time fishing mortality will be reduced to  $F = 0.15$ . Three different scenarios have been calculated because different sex ratios give different results.

#### Results

##### *Change in fisheries catch*

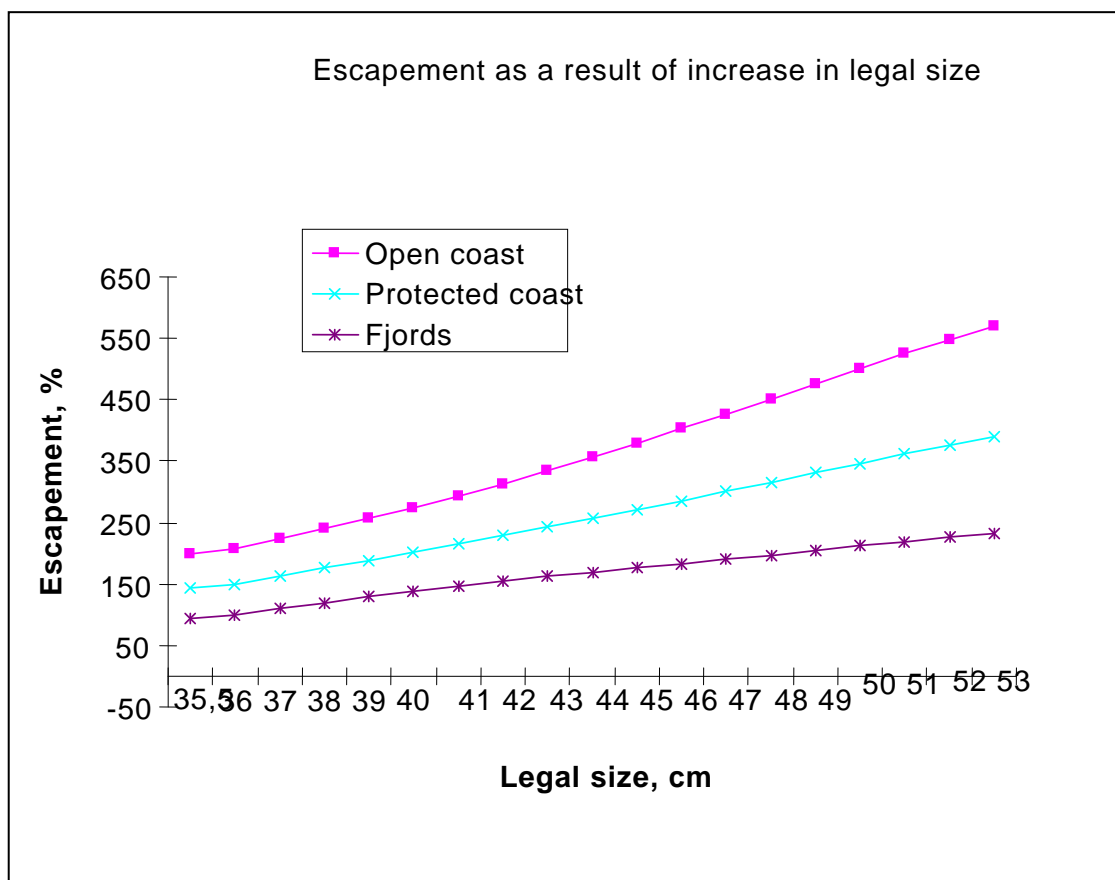
When the legal size increases from the current 35.5 cm to 40 cm, the catches of yellow eel will be reduced from the present situation by -29 to -45 %, Table 11. The reduced fishing mortality of yellow eel will result in more silver eels being present for fishery. The catches of silver eels will increase on the open coast by 54 % and on the protected coast by 24%, but will be reduced in the fjords by -2%. For the combined yellow and silver eel fisheries the result will be a decrease of between -21 to -35 %, depending on the sex ratios in the different fishing areas.

##### *Increase in escapement*

The combined increase in legal size with a reduction in effort will result in a larger escapement toward the Sargasso Sea. Relative to the current situation, the increase in escapement of silver eels will be between 100 and 250 %, Figure 5.

**Table 11.** Change in catch of yellow and silver eels (weight %) following a 50% reduction in effort and an increase in legal size of yellow eel from 35.5 to 40 cm.

Legal size cm	Open coast			Protected coast			Fjords		
	Yellow	Silver	Yellow and Silver	Yellow	Silver	Yellow and Silver	Yellow	Silver	Yellow and Silver
35,5	-23	23	<b>-19</b>	-25	0	<b>-21</b>	-29	-20	<b>-26</b>
36	-24	26	<b>-19</b>	-26	3	<b>-21</b>	-32	-18	<b>-27</b>
37	-25	33	<b>-19</b>	-28	8	<b>-22</b>	-36	-14	<b>-29</b>
38	-26	40	<b>-19</b>	-30	14	<b>-23</b>	-39	-10	<b>-31</b>
39	-28	47	<b>-20</b>	-32	19	<b>-24</b>	-42	-6	<b>-33</b>
40	-29	54	<b>-21</b>	-34	24	<b>-26</b>	-45	-2	<b>-35</b>
41	-31	62	<b>-22</b>	-37	30	<b>-27</b>	-48	2	<b>-37</b>
42	-34	70	<b>-23</b>	-39	36	<b>-28</b>	-51	5	<b>-38</b>
43	-37	79	<b>-25</b>	-42	41	<b>-30</b>	-53	8	<b>-40</b>
44	-40	88	<b>-27</b>	-45	47	<b>-32</b>	-56	11	<b>-41</b>
45	-44	97	<b>-29</b>	-48	53	<b>-34</b>	-58	14	<b>-43</b>
46	-48	107	<b>-32</b>	-52	59	<b>-36</b>	-61	17	<b>-45</b>
47	-52	117	<b>-34</b>	-56	65	<b>-39</b>	-64	19	<b>-47</b>
48	-56	127	<b>-37</b>	-60	71	<b>-41</b>	-68	22	<b>-48</b>
49	-61	137	<b>-41</b>	-64	78	<b>-44</b>	-71	25	<b>-51</b>
50	-65	147	<b>-44</b>	-68	84	<b>-47</b>	-74	28	<b>-53</b>
51	-70	157	<b>-47</b>	-72	90	<b>-50</b>	-78	31	<b>-55</b>
52	-74	167	<b>-51</b>	-76	96	<b>-53</b>	-81	34	<b>-57</b>
53	-79	176	<b>-54</b>	-81	102	<b>-56</b>	-84	37	<b>-60</b>



**Figure 5.** Combined effect of a reduction in effort and an increase in legal size of yellow eel; the escapement will increase by 100% to 250% in biomass.

#### 9.4 Recreational fishermen: effects of the reduction in effort.

The number of recreational permits sold to recreational fishermen with fixed gear is around 34,000. A survey among licence holders in 1997 showed that at least 43 % were fishing for eel and 57 % were targeting other fish species. Only about 100 of these are fishing in freshwaters and the remaining approx 14,300 are fishing in marine waters.

Recreational fishermen have until now been allowed to use 6 fishing units: these can be long lines or fyke nets with 8 m leader. One of the fishing units can be a larger fyke net fixed on piles.

Large fyke nets had to be reported to the Directorate of Fisheries; the number is known to be approximately 500.

From 2009 recreational fishermen will be allowed to use:

- Small fyke net with an 8 m leader. Larger fykes with 40 m leaders are no longer allowed.  
Longlines cannot be used from 1<sup>st</sup> May to 30th September. All other fishing gear (eel pots, seine nets, eel spear) are not allowed.
- Fishing season is reduced with an open season from 1st August – 9th May. The closed season is from 10<sup>th</sup> May to 31<sup>st</sup> July.

#### Effect of measures

In 2002 – 2004 a number of fishermen volunteered to report the number of fishing days and type, number and size of used gear and the number and length of captured eel. This data was reported to DTU Aqua throughout the fishing season. Based on this data the relative catch was calculated on a monthly basis (Tables 12 & 13).

**Table 12.** Number of fishermen, catch and fishing effort reporting catches to DTU Aqua.

Year	2002	2003	2004
Fishermen, no	22	28	21
Eel caught (> 35.5 cm), no	988	933	789
Fishing days, no	1,985	2,708	2,537

**Table 13.** Reduction in relative catches by recreational fishermen. Data from 2002-2004.

Month	Relative catch	Reduction
Jan	0.00	0.00
Feb	0.00	0.00
Mar	0.07	0.07
April	2.14	2.14
May	14.17	<b>May</b>
June	10.74	<b>June</b>
July	23.10	<b>July</b>
Aug	31.25	31.25
Sep	14.32	14.32
Okt	3.80	3.80
Nov	0.41	0.41
Dec	0.00	0.00
<b>Total</b>	<b>100.00</b>	<b>48.10</b>

The result is based on a fairly low number of fishermen (#, 21-28) However, the data indicates that a reduction in the fishing season reduces the relative catch by 48 % (Table 13), if fishing is prohibited in May, June and July. A ban on the large fyke net which was used by approx 500 fishermen reduced the relative catches by another 6 %. The effects of the measures are a 54 % reduction in the relative catches by these measures. To comply with the EU Regulation requiring a 50 % reduction, a closed season from May 10<sup>th</sup> - July 31<sup>st</sup> will be obligatory.

## 9.5 River basins to be stocked as part of the management plan.

### Introduction

A short description of the streams to be stocked as part of the management plan is given below. The information is derived from trout stocking plans made by DTU Aqua and the report “Salmonids and Fisheries in the Wadensea area” (Laksefiskene og fiskeriet i Vadehavsområdet. DFU report nr 40-97).

The term “suitable stocking area” is used to determine a stream without detrimental effects e.g. from hydropower turbines and a stream which can offer food and hiding places for the stocked eels. For practical reasons the stream must have a dimension (width and depth) which makes it possible to spread the eel by sailing downstream in a canoe or a small boat.



**Figure 6.** Location of streams to be stocked as part of the Danish Eel Management Plan. A description of the streams is given below.



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### River basins (streams)

**Grenå (1):** The stream has a catchment area of 484 km<sup>2</sup> and a wetted area of 81 ha. 56 ha are found suitable for stocking. The river is highly modified. The area suitable for stocking is the canals (north and south canal). They have a length of 53 km and are 10 m wide with a depth of >100 cm. There are an additional 5 kms in the tributary Ryum Å, a width of 5 m and a depth of 25-70 cm. There are no weirs.

**Hevring Å (2):** The stream has a catchment area of 28 km<sup>2</sup> and a wetted area of 7 ha. 6 ha are found suitable for stocking. The river is highly modified. The area found suitable for stocking is the lower 24 km, mean width of 2.5 m and a depth of 5 – 60 cm. There are no weirs.

**Gerå (3):** The stream has a catchment area of 163 km<sup>2</sup> and a wetted area of 18 ha. 12 ha are found suitable for stocking. The river is highly modified. The stretch (st. 6-12) is 20 km long, 5 m wide and 35 – 100+ cm deep and (st. 1-5) a stretch of 8 km long and 2, 8 m wide and depth 30-60 cm. There are no weirs.

**Voers Å (4):** The stream has a catchment area of 245 km<sup>2</sup> and a wetted area of 37 ha. 21 ha are found suitable for stocking. The main stretch from Stenskrog to Ormholdt (st.3-7) has a length of 10 km and is 4.4 m wide and 10 – 100 cm deep. From Ormholdt to Kattegat (st. 8 – 12) a stretch of 26 km, 6 m wide and are too deep for wading. There are 2 weirs: one at Dorf Møllesø and one at Skovmølle; they are situated in the tributaries upstream of the stocking area.

**Sæby Å (5):** The stream has a catchment area of 111 km<sup>2</sup> and a wetted area of 18 ha. 9 ha are suitable for stocking eel. The area of the stream where stocking is suitable is the main branch (st. 10-16) of 12.5 km length, 6.8 m wide and 40 -100 cm deep. There is one trout farm Sæbygård dambrug and one weir Sæby vandmølle, (Hydropower plant), but the weir is passable for Silver eels, due to water overflow at the weir.

**Bangsbro Å (6):** The stream has a catchment area of 31 km<sup>2</sup> and a wetted area of 5 ha. 1 ha is found suitable for stocking. A stretch from Bangsbro to Kattegat (st. 8-10) 5 km long 2 m wide 30-75 deep. There is one weir Bangsbo Mølle upstream of the stocking area.

**Elling Å (7):** The stream has a catchment area of 143 km<sup>2</sup> and a wetted area of 21 ha. 4 ha are found suitable for stocking. The stretch is (st. 9 – 13) 8 km long 5.5 m wide and 40-90 cm deep. There are two hydropower plants and 5 trout farms. Downstream passage of Silver eels is possible due to bypass streams.

**Liver Å (8):** The stream has a catchment area of 303 km<sup>2</sup> and a wetted area of 28 ha. 13 ha are found suitable for stocking. From Hundeleiv Å to the outlet in the Atlantic (st.. 6-10) the stretch is 20 km long and 3.5 – 9 m wide and too deep for wading. The river is partly regulated. There is a weir in the system at Sønder Mølle which is passable due to water overflow at the weir.

**Uggerby Å (9):** The stream has a catchment area of 363 km<sup>2</sup> and a wetted area of 45 ha. 35 ha are found suitable for stocking. A stretch from Boller Møllebæk to Mosbjerg (st. 4-8) 26 km long, 6 m wide and too deep for wading. From Mosbjerg to the coastline (st. 8-14) the stretch is 22 km long, 9 m wide and too deep for wading. On the latter stretch at Mosbjerg there is a trout farm with a bypass. There is one hydropower plant and weirs at Mosbjerg trout farm, Boller Sø, Mølledam, and Skeen Møllegård. Downstream passage of Silver eels is possible due to bypass streams.

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**Varde Å (10):** The stream has a catchment area of 1090 km<sup>2</sup> and a wetted area of 192 ha. 90 ha are found suitable for stocking. Varde å (st. 21-28) a stretch of 43 km long 21 m wide and two deep for wading. The river is highly regulated with only 20 % of the river not regulated. There are about 36 weirs in the system including fish farms. A large hydropower plant Karlsgårde Værket has been terminated and there are plans to restore the river basin during the next few years e.g by removing some of the weirs.

**Sneum Å (11):** The stream has a catchment area of 508 km<sup>2</sup> and a wetted area of 79 ha. 39 ha are found suitable for stocking. From the outlet of Grisbæk to Waddensea (st. 4-8) the stretch is 21.7 km long and 14 m wide, depth are >100 cm. Another suitable stretch is from Holsted Å to Sneum Å a stretch of 17.5 km, 8.5 m wide >100 cm deep. There are 25 weirs in the river system. Two weirs in connection with trout farms (Fåborg Fiskeri and Hjortkær fiskeri) are situated upstream the stocking area. There is no hydropower in the system.

**Konge Å (12):** The stream has a catchment area of 446 km<sup>2</sup> and a wetted area of 105 ha. 83 ha are found suitable for stocking. From Anst Å to the Waddensea (st. 7-13) the river is 47.6 km long, 15.7 m wide and 20-200 cm deep. Another useful stretch is Vejen Å (st. 37-38) which is 6 km long and 8 m wide, > 60 cm deep and (st. 39) 4,6 km long, 8 m wide and 25-40 cm deep. The main river is unregulated except from a few kilometres at the lower part. There are 16 weirs in connection with trout farms, of which 6 are in the stocking area, but all have bypass facilities for eel.

**Brøns Å (13):** The stream has a catchment area of 112 km<sup>2</sup> and a wetted area of 14 ha. 7.5 ha are found suitable for stocking. From the bifurcation of Holbæk to the Waddensea (st. 7-9) the stretch is 10 km long, 7.5 m wide and too deep for wading. The river is unregulated. There is one weir at Brøns Forsøgdambrug (Scientific fish farm) situated in the stocking area, which is passable.

**Brede Å (14):** The stream has a catchment area of 473 km<sup>2</sup> and a wetted area of 76 ha. 28 ha are found suitable for stocking. From Løgumgårde to the Waddensea (st. 13-19) the stretch is 25.4 km long and 11.2 m wide, too deep for wading. There are no major weirs in the river. The river is strongly regulated (98 %). In the small tributaries several small weirs may give problems for upstream migrating fish at low water levels. Downstream migration is possible.

**Vidå (15):** The stream has a catchment area of 1,300 km<sup>2</sup> and a wetted area of 187 ha. 88 ha are found suitable for stocking. From Lake Rudbøl to Højer sluice (st. 24-22) the stretch is 10 km long and 40 m wide. Lake Rudbøl has a wetted area of 33.2 ha. From Lake Rudbøl upstream to Sønder Å the stretch is 4.6 km long and 25 m wide; there is a very broad river stretch Magister Kog 70-140 m wide and 1.5 km long (can be regarded as a lake). Arn Å (st. 9 – 18) is 22 km long and 8 m wide. Sønder Å (st. 102 – 110) is 25 km long and 9 m wide. The river is highly regulated approx 80-90 %. There are three weirs: one situated in Tønder city, and two in Arn Å at Andrup Mølle and Hellevad Møllens (trout farm). The weirs are all passable for eels. In Grøn Å at Nolde a pumping station regulates the water level. Approx 25 % of the catchment is on German territory.

## 9.6 Minimum legal size for yellow eel in saltwater

From 1st July 2009 to 31st December 2013 the following minimum legal sizes will apply for yellow Eel in salt water.

**Table 14.**

<b>Area</b>	<b>2008 cm</b>	<b>2009 cm</b>	<b>2010 cm</b>	<b>2011 cm</b>	<b>2012 cm</b>	<b>2013 cm</b>
Salt water in general	35.5	36	37	38	39	40
Limfjorden	38	38	38	38	39	40
Ringøbing, Nisum and Stadil fjords	29.5	31	33	35	37	38
Roskilde Fjord and Isefjord	35.5	36	36	37	38	38

## 9.7 Reduction in the number of registered commercial pound nets and other pile fixed gear.

**Table 15.**

<b>Region</b>	<b>2004 – 2006</b>	<b>2007-2008</b>	<b>Development</b>
Esbjerg	206	143	-30 %
Frederikshavn	280	221	-21 %
Randers	81	83	+3 %
Nykøbing Mors	NA	244	NA
Roskilde and Fredericia	412	383	-7 %
<b>Total</b>	<b>979</b>	<b>830</b>	<b>-15 %</b>

Source: Registrations by The Danish Directorate of Fisheries.

Table 15. illustrates the development in number of pound nets and pile fixed fyke nets registered by commercial fishermen and entities in 2004-2006 and 2007-2008. Registrations for both periods are mean numbers.

For the period 2004-2006 documentation for registrations conducted by the Directorate of Fisheries, Nykøbing Mors office is no longer available. The office in Rønne, Bornholm, does not have any registrations because the rocky seabed does not allow for pile fixed gear.

In relation to the actual effort depicted in Table 15, a series of conditions and reservations apply; positions for pound nets and pile fixed fyke nets are divided and registered yearly at local stakeholder meetings arranged by the Directorate of Fisheries, most often during the winter. Depending on wind, currents and developments in catches, not all registered positions are used for actual fishing activities. Not all registered pound nets target eel. Pound nets designed for garfish, herring, mackerel and cod fishing are most often unable to catch substantial quantities of eel. The number of pound nets targeting species other than eel is unknown, and the number may vary depending on region and time of year.

## 9.8 Eel fishing gear

### A) Pound nets:

Pounds net fishing activities are conducted throughout Denmark, along the coastline, in fjords and in lakes. Designs vary significantly according to regional traditions, species targeted, currents, wind, predators and sea floor structure.

For pound nets targeting Silver eel, the diameter of the ring is typically more than 20 meters and the length of the leader may be up to 500 m. The leader can be fixed on piles or attached to buoys. Depending on the design, pound nets are emptied from either outside or inside the ring.

Figure 7 Typical pound net

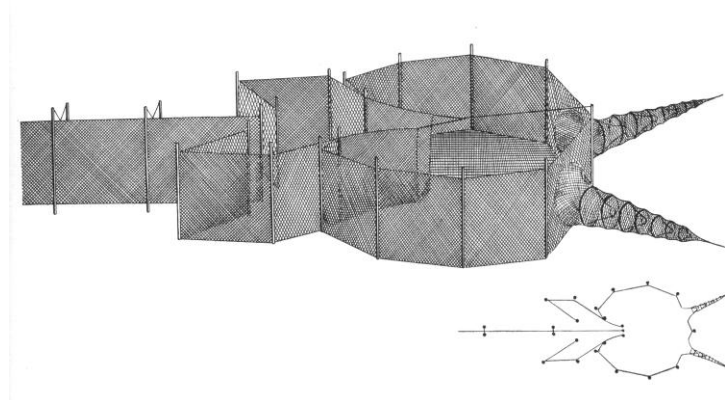
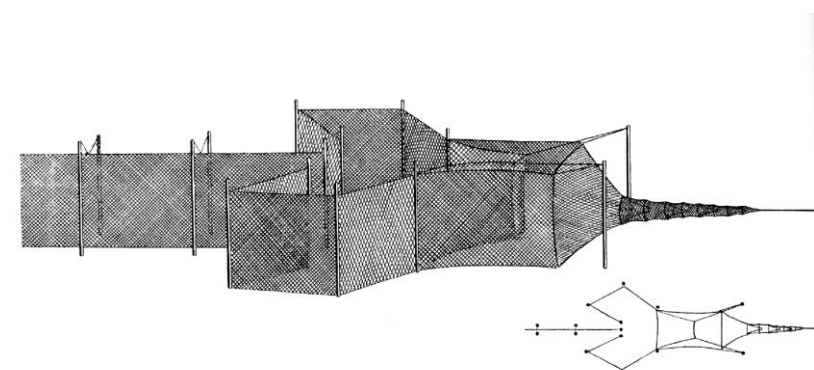


Figure 8 Typical pound net designed for eel fishing



**B) Pile fixed fyke net constructions:**

Fishing activities with pile fixed net constructions are conducted throughout Denmark, along the coastline, in fjords and in lakes. Designs vary significantly according to regional traditions, species targeted, currents, wind, predators and sea floor structure.

Unlike the pound nets there is no ring, fyke constructions are small and the leader is typically less than 50 m. The leader can be fixed on piles or attached to buoys. Depending on the design, pound nets are emptied from either outside or inside the ring. Fyke constructions similar to those illustrated in figure 11. will be banned for recreational fishermen in accordance with the Danish Eel Management Plan.

Figure 9. Three legged pile fixed fyke net.

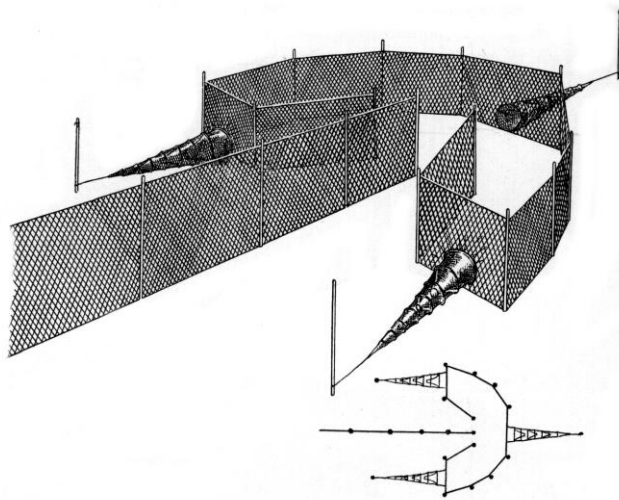


Figure 10. Pile fixe fyke funnel construction for deeper waters

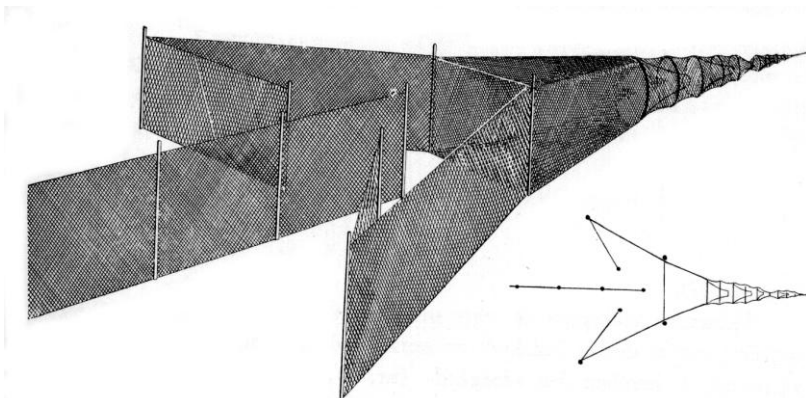
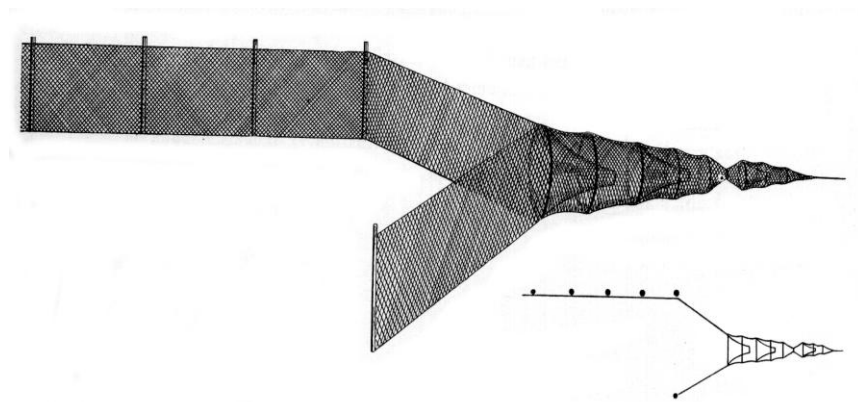


Figure 11. Typical pile fixed fyke net

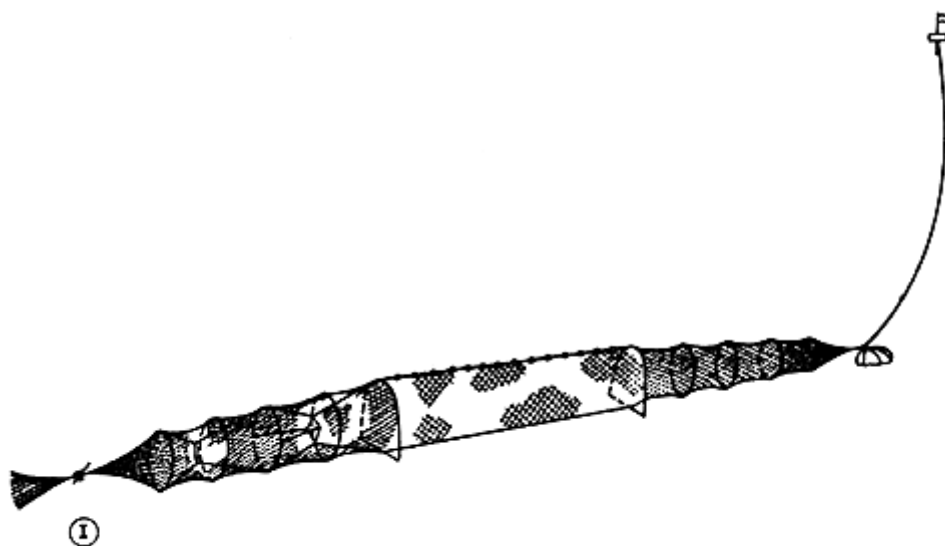


**C) Fyke nets:**

Fyke nets are used throughout Denmark, along the coastline, in fjords, in streams and in lakes. Designs vary significantly according to regional traditions, species targeted, currents, wind, predators and sea floor structure.

Fyke nets used by commercial fishermen and entities are often larger than does used by recreational fishermen limited to 90 cm in the front hoop.

Figure 122. Typical double fyke net



Drawing from: FAO <http://www.fao.org/docrep/005/AC674E/AC674E24.gif>

## 9.9 Eel Regulation in accordance with the Danish Eel Management Plan.

### A) Provision on terms and conditions for commercial eel fishing in marine and fresh water. (In Danish)

#### **Bekendtgørelse om betingelserne for erhvervsmæssigt fiskeri af ål i saltvand og ferskvand**

I medfør af § 10, stk. 1 og 2, § 10 e, § 12, stk. 2, § 27, §§ 30-32, §§ 34-36, § 38, stk. 2, § 50, § 112, § 112 b, § 121, stk. 2, og § 130, stk. 2, i lov om fiskeri og fiskeopdræt (fiskeriloven), jf. lovbekendtgørelse nr. 978 af 26. september 2008 og efter bemyndigelse, fastsættes:

#### Kapitel 1

##### *Anvendelsesområde og definitioner.*

§ 1. Bekendtgørelsen omfatter erhvervsmæssig udnyttelse af ål i saltvand og ferskvand, der foretages af

- 1) personer eller selskaber registreret med ret til at drive erhvervsmæssigt fiskeri eller bierhvervsfiskeri og
- 2) personer eller selskaber, der har tilladelse til at omsætte fangster fra ferske vande i henhold til fiskerilovens § 12, stk. 2.

§ 2. I denne bekendtgørelse forstås ved:

- 1) Anmeldelse af redskab: Anmeldelse til Fiskeridirektoratet af opstilling af bundgarn og bundgarnslignende ruseredskaber i overensstemmelse med bekendtgørelse om fiskeredskaber (bundgarn mv.) i saltvand
- 2) Bruttoomsætning: Den værdi af landinger, der er registreret i Fiskeridirektoratets registre på grundlag af oplysninger indsendt til Fiskeridirektoratet i overensstemmelse med reglerne i bekendtgørelse om registrering og kontrol af oplysninger om fisk, der landes direkte, og fisk, der importeres.
- 3) Kalenderår: 1. januar til 31. december.
- 4) Landinger: Mængder af ål, som er registreret i Fiskeridirektoratets registre på grundlag af oplysninger indsendt til Fiskeridirektoratet i overensstemmelse med reglerne i bekendtgørelse om registrering og kontrol af oplysninger om fisk, der landes direkte, og fisk, der importeres.
- 5) Referenceår: Et eller flere år i den periode, i hvilket landing af ål eller registrering af redskab danner grundlag for tilladelse til ålefiskeri ifølge de enkelte bestemmelser i bekendtgørelsen.
- 6) Ålebedrift: Et fiskeri, som en ejerkreds har drevet med et eller flere fartøjer, og fra hvilket, der er indrapporteret landinger til Fiskeridirektoratet i overensstemmelse med reglerne i bekendtgørelse om registrering og kontrol af oplysninger om fisk, der landes direkte, og fisk, der importeres.
- 7) Ålefiskeri: Fiske, medbringe og lande ål.



## Kapitel 2

### *Krav om tilladelse til ålefiskeri eller redskabsanvendelse i overensstemmelse med bestemte bestemmelser*

§ 3. Efter den 1. juli 2009 må de i § 1 nævnte personer og selskaber kun fiske, medbringe og lande ål i henhold til tilladelse udstedt af Fiskeridirektoratet.

Stk. 2. Uanset stk. 1. må erhvervs- og bierhvervsfiskere, der ikke har tilladelse til ålefiskeri fiske, medbringe og lande ål i saltvandsområder efter de regler, der er angivet i § 16 og personer og selskaber, der ikke har tilladelse til ålefiskeri i ferskvandsområder må fiske, medbringe og lande ål i ferskvandsområder efter reglerne i § 18.

## Kapitel 3

### *Regler for anvendelse af redskaber, der er egnet til at fange ål*

#### *A. Typer af redskaber der kan anvendes i henhold til tilladelse til ålefiskeri*

§ 4. Til ålefiskeri må ikke benyttes andre redskaber end de redskaber, der er omfattet af tilladelse, til ålefiskeri. Desuden kan der anvendes de i § 16 og § 18 nævnte redskaber i overensstemmelse med reglerne i disse bestemmelser.

Stk. 2. Stangning og blusning af ål er ikke tilladt.

Stk. 3. Det er ikke tilladt, at opbevare, medbringe og lande ål fra fangstrejser, hvor der medbringes redskaber, som ikke må anvendes til ålefiskeri. Der må således bl.a. fra fangstrejser, hvor der medbringes ål ikke medbringes trawl eller andre slæbende vodredskaber, tejner, krogliner eller ruser, som ikke må anvendes til ålefiskeri, jf. stk. 1.

§ 5. Tilladelse til ålefiskeri i saltvandsområder vil omfatte ret til at anvende et nærmere angivet antal af følgende redskabstyper:

- 1) Kasteruse: Maksimalt: 90 cm i forreste bøjle, maksimalt: 3 kalve, maksimalt: 7 bøjler.
- 2) Armruse/ålebundgarn: Oven- eller undervandsruse, som måler under 20 m i ringen eller i armene med 2 stillebånd i bageste kalv i rusen.
- 3) Ålebundgarn: Bundgarn, som måler 20 m eller derover i ringen eller i armene med 2 stillebånd i bageste kalv i rusen.

Stk. 2. Udover de i stk. 1 nævnte redskabstyper kan på nærmere betingelser tillades anvendt krogliner, jf. § 12, stk. 2.

§ 6. Tilladelse til ålefiskeri i ferskvandsområder vil omfatte ret til at anvende et nærmere angivet antal redskaber af nærmere beskrevet type, jf. § 17.

#### *B. Mulighed for at bruge ruser, bundgarn og bundgarnslignende redskaber til andet end ålefiskeri*

§ 7. I saltvand og ferskvandsområder må ruser, bundgarn og bundgarnslignende redskaber kun anvendes i henhold til tilladelse til ålefiskeri, jf. § 3, stk. 1 eller i overensstemmelse med § 16 og § 18, dog er det tilladt at anvende de nævnte redskaber til andet end ålefiskeri, hvis betingelserne i stk. 2-5 er opfyldt.

*Stk. 2.* Ruseredskaber, der anvendes til andet fiskeri end ålefiskeri, må anvendes på følgende betingelser:

- 1) Maskemålet i bagrusen – efter sidste bøjle – skal være på mindst 90 mm (helmaske).  
Maskemålet er opfyldt, hvis der i rusen – mellem, sidste og anden sidste bøjle – er et vindue på 14 x 14 cm med det nævnte maskemål. Vinduet skal være placeret på rusens overside, eller
- 2) Alle kalve i rusen skal være åbne som en firkant og holdes på plads med 4 stillebånd. Maskestørrelsen i rusen må ikke overstige 30 mm (helmaske).

*Stk. 3.* De bundgarn og bundgarnslignende redskaber, der må anvendes til andet fiskeri end ålefiskeri, må ikke være forsynet med ruser.

*Stk. 4.* Ruser, bundgarn og bundgarnslignende redskaber til andet fiskeri end ålefiskeri, jf. stk. 2 - 3 skal før brug anmeldes til Fiskeridirektoratet. Anmeldelsen skal indeholde oplysning om antallet af de ruser, bundgarn og bundgarnslignende redskaber, den pågældende vil anvende til andet fiskeri end ålefiskeri og beskrivelse af redskabernes udformning, størrelse og placeringen af redskabet med angivelse af længde og breddegrad i WGS 84 Datum

*Stk. 5.* Anmeldelse af redskaber til andet end ålefiskeri efter stk. 4 skal ske uanset, om redskabet har været anvendt og anmeldt før denne bekendtgørelses ikrafttræden. Fiskeridirektoratet kan beslutte, at et redskab ikke kan tillades anvendt, hvis det ikke er tilstrækkeligt godtgjort, at redskabet ikke kan fange ål.

## Kapitel 4

### *Opbevaring og omsætning af ål*

**§ 8.** Ål må efter fangsten og før første omsætning kun opbevares af fiskere, der har tilladelse til ålefiskeri eller som har fisket ål på grundlag af reglen i § 16 eller § 18.

*Stk. 2.* Ål må i første omsætningsled kun afsættes af:

- 1) Fiskere, der har Fødevarestyrelsens tilladelse til at afsætte egen fangst og som efter denne bekendtgørelses ikrafttræden efter ansøgning har fået Fiskeridirektoratets tilladelse til at omsætte egen fangst af ål eller
- 2) Personer, virksomheder og selskaber, der er godkendt til at drive selvstændig virksomhed med førstegangsomsætning af fisk.

## Kapitel 5

### *Udstedelse af tilladelser til ålefiskeri*

**§ 9.** På grundlag af forudgående aktivitet i ålefiskeriet i form af landinger, der er registreret i Fiskeridirektoratet, jf. § 11, § 14, og § 17, eller ved registrering i Fiskeridirektoratet af anmeldelse af opstilling af bundgarn og bundgarnslignende redskaber, jf. § 15, kan Fiskeridirektoratet efter ansøgning udstede tilladelse til berettigede erhvervsfiskerselskaber, erhvervsfiskere, bierhvervsfiskere og ålebedrifter.

*Stk. 2.* Fiskeridirektoratet kan ved beslutning om udstedelse af tilladelserne begrænse det tilladte antal redskaber, m.v. hvis hensynet til den europæiske ål, vurderes at kræve det.

*Stk. 3.* I tilladelsen fastlægges nærmere vilkår for fiskeriet herunder om:

- 1) Typen og antallet af redskaber, der må anvendes.
- 2) Varigheden af tilladelsen.

- 3) Angivelse af de fartøjer, der kan anvendes til at fiske, medbringe, opbevare og lande ål.
- 4) Krav om indrapportering til Fiskeridirektoratet via logbog.

*Stk. 4.* Vilkårene for tilladelsen kan ændres bl.a. i lyset af behovet for at beskytte den europæiske ål herunder overholdelse af Rådets Forordning (EF) nr. 1100/2007. Tilladelsen kan tilbagekaldes og anvendelse af redskaber og tilladelsernes varighed kan indskrænkes. Desuden kan der stilles vilkår om, hvor fiskeriet må finde sted. Tilladelserne kan desuden gøres betinget af yderligere vilkår.

**§ 10.** Ansøgning om tilladelse med de oplysninger, der er nævnt i stk. 2, skal være Fiskeridirektoratet i hænde senest den 16. februar 2009, senere indkomne ansøgninger vil dog efter begrundet anmodning også kunne behandles.

*Stk. 2.* Ansøgning om åletilladelse skal indeholde oplysning om, hvilke typer og antal redskaber ansøgeren har anvendt i hvert af årene 2004-2007. Oplysningerne skal angives på et skema, der offentliggøres på Fiskeridirektoratets hjemmeside og som kan rekvireres i Fiskeridirektoratets afdelinger.

*Stk. 3.* Som led i dokumentationen for den forudgående redskabsanvendelse, som danner grundlag for tilladelse til fortsat ålefiskeri, kan Fiskeridirektoratet stille krav om, at de anvendte redskaber forevises og ansøgeren afgiver nærmere dokumentation for anvendelsen.

## Kapitel 6

### *Betingelse for at opnå tilladelse på grundlag af registreret omsætning af landede ål*

**§ 11.** Fiskeridirektoratet kan udstede tilladelse til ålefiskeri til de i § 1 nævnte personer og selskaber og ålebedrifter, jf. § 2, nr. 6, der opfylder betingelserne i stk. 2.

*Stk. 2.* Det er en forudsætning for udstedelse af tilladelse til ålefiskeri, jf. stk. 1, at der i Fiskeridirektoratets registre mindst er registreret landinger foretaget af ansøgeren med:

- 1) Bruttoomsætning fra landede ål i 2004-2006 på i alt mindst 30.000 kr. og i 2007 på mindst 10.000 kr. eller
- 2) Landede mængder i 2004-2006 på i alt mindst 600 kg ål og i 2007 på mindst 200 kg ål.

## Kapitel 7

### *Tilladelse til ålefiskeri i saltvandsområder*

**§ 12.** Tilladelser på grundlag af tidligere registrerede ålelandinger af den størrelse, som er angivet i § 11, vil indeholde ret til at anvende et nærmere angivet antal redskaber af den i § 5 angivne type. Udgangspunktet for Fiskeridirektoratets afgørelse om tilladelse til redskabsanvendelse er, at der kan tillades det antal og den type faststående redskaber, som ansøgeren kan dokumentere at have anvendt i 2007 til fiskeri af de landinger, der er registreret i Fiskeridirektoratet. Fiskeridirektoratet kan dog beslutte, at ikke alle redskaber kan anvendes, hvis dette ikke vurderes, at være foreneligt med hensynet til den europæiske ål eller andre hensyn, der varetages i henhold til fiskeriloven. Armruse/ålebundgarn, jf. § 5, stk. 1, nr. 2 – 3 kan kun tillades, hvis anvendelsen af pladsen og redskabet har været anmeldt til Fiskeridirektoratet.

*Stk. 2.* Uanset stk. 1, kan Fiskeridirektoratet tillade, at ansøgere, der opfylder betingelserne for at få tilladelse i § 11 på baggrund af størrelsen af de registrerede ålelandinger indtil 31. december 2013 anvender det antal krogliner, som den pågældende kan dokumentere at have

anvendt. Der kan stilles særlige vilkår med hensyn til i hvilke områder, krogliner kan anvendes.

**§ 13.** For tilladelser, der udstedes med baggrund i, at ansøgeren opfylder betingelserne i § 11 med hensyn til størrelsen af registrerede landinger af ål, hvor fiskeriet er foretaget med redskaber, som ikke kan tillades fra 1. juli 2009, kan Fiskeridirektoratet på grundlag af størrelsen af de registrerede landinger i 2007 tillade, at der anvendes redskaber i overensstemmelse med stk. 2.

*Stk. 2.* Indenfor de samlede registrerede landinger af ål fra den pågældende i 2007, kan der i alt højst gives tilladelse til følgende antal og typer af redskaber:

- 1) 1 kasteruse, jf. § 5, stk. 1 nr. 1 for hver 5 kg.
- 2) 1 armruse/ålebundgarn, jf. § 5, stk. 1, nr. 2 for hver 10 kg.
- 3) 1 ålebundgarn, jf. § 5, stk. 1, 3, for hver 50 kg.

**§ 14.** Ansøgere, der ikke opfylder betingelserne i § 11 med hensyn til værdien og størrelsen af de registrerede landinger af ål, men for hvilke, det er registreret i Fiskeridirektoratets registre, at ansøgeren har foretaget landinger af ål i løbet af perioden 2004-2006 og 2007 kan, hvis de pågældende kan dokumentere at have anvendt kasteruser, opnå tilladelse til at anvende op til 20 kasteruser, jf. § 5, stk. 1., nr. 1.

**§ 15.** Ansøgere, der ikke opfylder betingelserne for at opnå tilladelse efter § 11, men som har anmeldt opstilling af mere end ét bundgarn eller bundgarnslignende redskab til Fiskeridirektoratet i løbet af perioden 2004-2006 og 2007, kan opnå tilladelse til at fiske med op til halvdelen af det antal redskaber, der har været anmeldt og udsat på pladsen i 2007. Der kan gives tilladelse til den type redskaber, der er nævnt i § 5, stk. 1, nr. 2 og 3.

*Stk. 2.* Ansøgere, der opfylder betingelserne herfor kan opnå tilladelse både til ålefiskeri med kasteruser efter § 14 og til ålefiskeri med bundgarn og bundgarnslignende redskaber efter stk. 1.

## Kapitel 8

### *Ålefiskeri i saltvandsområder uden særskilt tilladelse*

**§ 16.** Erhvervs- og bierhvervsfiskere, der ikke har tilladelse til ålefiskeri, jf. § 12 eller §§ 14 og 15 kan uanset dette i perioden fra 1. august til 9. maj i saltvandsområder anvende højst 6 kasteruser, jf. stk. 2 til ålefiskeri.

*Stk. 2.* De i stk. 1 tilladte kasteruser må ikke være ovenvandsruser, dvs. at ingen del af redskabet må rage op over vandskorpen. Kastruser må højst måle 90 cm i den forreste rusebøjle. For alle slags ruseredskaber gælder det, at maskestørrelsen (helmaske) i radgarnet ikke må overstige 40 mm. I kastruser skal der anvendes stoprist eller spærrenet efter de almindelige gældende regler for saltvand.

*Stk. 3.* Erhvervs- og bierhvervsfiskere, skal før brug af redskaberne anmelde dette til Fiskeridirektoratet. Fiskeridirektoratet udsteder derefter et nummer, der skal indgå i afmærkningen af redskaberne.

## Kapitel 9

### *Tilladelse til ålefiskeri i ferskvandsområder*

§ 17. Tilladelsen til ålefiskeri i ferskvand udstedes til ansøgere, der opfylder betingelserne i § 11 med hensyn til registrerede landinger. Tilladelserne vil indeholde ret til at anvende et nærmere angivet antal redskaber af nærmere angiven type og størrelse. Udgangspunktet for Fiskeridirektoratets afgørelse om tilladelse til redskabsanvendelse er, at der kan tillades det antal og den, type faststående redskaber, som ansøgeren kan dokumentere at have anvendt i 2007 til fiskeri af de landinger, der er registreret i Fiskeridirektoratet. Fiskeridirektoratet kan dog beslutte, at ikke alle redskaber kan anvendes, hvis dette ikke vurderes at være foreneligt med beskyttelsen af den europæiske ål eller andre hensyn, der varetages i henhold til fiskeriloven.

## Kapitel 10

### *Ålefiskeri i ferskvandsområder uden særskilt tilladelse*

§ 18. De i § 1, 2 nævnte personer og selskaber, der ikke har tilladelse til ålefiskeri, jf. § 17, kan uanset dette anvende ruser og ålekister i overensstemmelse med de regler, der gælder i bekendtgørelse om rekreativt fiskeri i salt- og ferskvand samt redskabsfiskeri m.v. i ferskvand.

## Kapitel 11

### *Gyldighedsperiode for tilladelse, landingsfartøjer m.v.*

§ 19. Åletilladelse udstedes foreløbigt til 31. december 2013. Fiskeridirektoratet kan i tilladelsesperioden stille yderligere vilkår eller ændre vilkårene for tilladelse, jf. § 9, stk. 4.

Stk. 2. Det er en forudsætning for opretholdelse af tilladelsen i tilladelsesperioden, at denne er anvendt af tilladelseshaveren i det forudgående år.

§ 20. Fiskeridirektoratets registre over tilladelse og oplysninger om tilladte redskaber, tilknyttede fartøjer og landinger af ål er offentligt tilgængelige.

§ 21. I forbindelse med ansøgningen om tilladelse skal ansøgeren oplyse, hvilke fartøjer, der vil blive brugt til landing af ål i henhold til tilladelsen. Hvis tilladelseshaveren senere ønsker at benytte andre fartøjer, skal dette oplyses til Fiskeridirektoratet og der må ikke finde landinger sted, før der er udstedt ny tilladelse, hvoraf disse fartøjers identifikation fremgår.

§ 22. Alle redskaber, som anvendes til erhvervmæssigt ålefiskeri skal mærkes i overensstemmelse med reglerne, herom.

Stk. 2. For fiskeri på baggrund af åletilladelse gælder, at nummeret på åletilladelsen skal fremgå af mærket. Desuden skal de numre, som kan identificere de tilladte redskaber fremgå af mærket. Nærmere vilkår for mærkning af redskaberne fastsættes i tilladelse.

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## Kapitel 12

### *Ophør af tilladelse*

**§ 23.** Hvis en tilladelseshaver beslutter at ophøre med at anvende en tilladelse eller at indskrænke antallet af redskaber, skal dette meddeles Fiskeridirektoratet sammen med oplysning om, hvilke redskaber og fartøjer, der udgår. Fiskeridirektoratet annullerer derefter tilladelsen, eller indskrænker den.

**§ 24.** Tilladelsen til ålefiskeri bortfalder, hvis tilladelseshaverens ret til at drive erhvervs-mæssigt fiskeri eller bierhvervsfisker eller tilladelsen til at omsætte fangster fra ferske vande bortfalder. Fiskeridirektoratet kan i forbindelse med udstedelse og opretholdelse af tilladelse til ålefiskeri betinge tilladelsen af, at tilladelseshaveren inden en nærmere angivet frist, overfor Fiskeridirektoratet dokumenterer, at betingelserne for opretholdelse af registreringen som erhvervs-, bierhvervs- eller erhvervsfiskerselskab fortsat er til stede.

*Stk. 2.* Efter omregistrering af en tilladelseshaver fra erhvervsfisker til bierhvervsfisker, kan den pågældende fremadrettet kun anvende redskaber, det er tilladt bierhvervsfiskere at benytte.

## Kapitel 13

### *Mulighed for udstedelse af tilladelse i særlige tilfælde til ålefiskeri i saltvand*

**§ 25.** Fiskeridirektoratet kan efter ansøgning dispensere for kravene i § 11, hvis ansøgeren kan påvise nyetablering i ålefiskeriet inden for perioden 2004-2007.

*Stk. 2.* Det er en forudsætning for dispensation, at ansøgeren opfylder kravet om registrering af landinger i et af kalenderårene, der svarer til en bruttoomsætning på mindst 10.000 kr. eller landing af mindst 200 kg ål. Desuden skal ansøgeren dokumentere:

- 1) Etablering i ålefiskeriet og tidspunkt herfor samt udgifter til nyanskaffelser af redskaber, fartøjer m.v. og
- 2) Afhængighed af ålefiskeriet, som beskrevet i stk. 3.

*Stk. 3.* Dispensation efter stk. 1 forudsætter, at ansøgeren kan dokumentere i et af kalenderårene 2004-2007 at have haft en bruttoomsætning fra ålefiskeri, der svarer til, at bruttoomsætningen af de landede, registrerede ål det pågældende kalenderår udgjorde mindst 10 % i forhold til den samlede bruttoomsætning fra den pågældendes øvrige registrerede landinger og indtægter fra anden erhvervmæssig aktivitet, pension eller andre indtægter.

**§ 26.** Fiskeridirektoratet kan efter ansøgning dispensere for kravene i § 11, hvis ansøgeren kan påvise, at kravene ikke er opfyldt på grund af dokumenteret alvorlig sygdom, der har afskåret ansøgeren fra at udøve fiskeri i en uafbrudt periode på mindst 6 måneder.

*Stk. 2.* Det er en forudsætning for dispensation, at den pågældende kan dokumentere:

- 1) I mindst 2 af kalenderårene 2004-2007 at have registreret landinger af ål, der mindst svarer til en bruttoomsætning fra ål på 10.000 kr. eller 200 kg ål årligt og
- 2) I mindst 2 af kalenderårene at have haft en bruttoomsætning fra ålefiskeriet, der svarer til, at bruttoomsætningen af de landede registrerede ål i det pågældende kalenderår udgjorde mindst 10 % i forhold til den samlede bruttoomsætning fra den pågældendes registrerede landinger og indtægter fra anden erhvervmæssig aktivitet, pension eller andre indtægter.

§ 27. Fiskeridirektoratet kan, i det omfang hensynet til bestanden af europæisk ål vurderes at muliggøre det, tillade, at erhvervsfiskere, som inden for de seneste 3 kalenderår forud for ansøgningen har afsluttet fiskeriets lærlingeuddannelse, fisker ål med nærmere angivne redskaber, jf. § 5, uanset, at de pågældende ikke opfylder betingelserne i § 11.

Stk. 2. Det er en forudsætning for tilladelsen, at den pågældende efter afslutningen af lærlingeuddannelsen ikke har erhvervet fartøj, kvoteandele m.v. med henblik på etablering i andet fiskeri.

Stk. 3. Hvis tilladelseshaveren ikke i løbet af 3 kalenderår efter udstedelse af tilladelsen har opnået en afhængighed af ålefiskeriet, der svarer til, at bruttoomsætningen fra ålefiskeriet udgør mindst 10 % i forhold til den samlede bruttoomsætning fra den pågældendes andre registrerede landinger og indtægter fra anden erhvervsmæssig aktivitet, eller andre indtægter, inddrager Fiskeridirektoratet tilladelsen til ålefiskeri.

## Kapitel 14

### *Mulighed for midlertidige tilladelser og opdeling af tilladelser, mv.*

§ 28. I det omfang alle forhold omkring behandlingen af en ansøgning til ålefiskeri ikke er afklaret inden tidspunktet for begyndelse af den sædvanlige sæson for ålefiskeriet i 2009, kan Fiskeridirektoratet udstede en midlertidig tilladelse til ålefiskeri, som kan ændres eller trækkes tilbage, når der er truffet endelig administrativ afgørelse.

Stk. 2. Der udstedes ikke midlertidige tilladelser i medfør af stk. 1,

- 1) hvis det er åbenbart, at betingelserne for udstedelse af tilladelse ikke er opfyldt, herunder at der ikke er registreret landing af ål fra ansøgeren i Fiskeridirektoratets register som anført i § 11 og § 14 eller foretaget anmeldelse af redskaber som anført i § 15,
- 2) der ved ansøgning om dispensation efter §§ 25-27 ikke er fremlagt dokumentation, der giver grundlag for en afgørelse af ansøgningen eller
- 3) tilladelse ikke vurderes at være forenelig med hensynet til den europæiske ål og andre hensyn, der varetages efter fiskeriloven.

§ 29. Hvis flere erhvervsfiskere, der har foretaget indberetning af landinger i referenceårene fra et fælles fiskeri i en ålebedrift, der med hensyn til størrelsen af de indberettede landinger opfylder betingelserne i § 11, ansøger om, at der på grundlag af de samlede registrerede landinger og redskabsanvendelse i stedet for udstedelse af én tilladelse til bedriften, sker opdeling af de redskaber, det kan tillades at anvende, så der udstedes selvstændig tilladelse til flere af deltagerne i bedriften, kan dette imødekommes.

Stk. 2. Anmodning om udstedelse af flere tilladelser i stedet for én kan kun imødekommes, hvis deltagerne i fællesskab indenfor fristen i § 10, stk. 1 ansøger om det. Fiskeridirektoratet opdeler retten til anvendelse i overensstemmelse med den fælles ansøgning.

§ 30. Hvis en ålebedrift fra hvilken, der er foretaget indberetninger af det i § 11 nævnte omfang i perioden 2004 til 2007, er overtaget af en anden fisker, kan tilladelse udstedes til den fisker, der har overtaget bedriften og drevet den videre.

Stk. 2. Det er en betingelse for udstedelse af tilladelse i medfør af stk. 1, at den fisker, der inden overdragelsen har foretaget indberetninger og den fisker, der har overtaget bedriften i fællesskab anmoder om, at tilladelsen i stedet udstedes til den erhvervs-, bierhvervs eller det erhvervsfiskerselskab, der har overtaget bedriften.

**§ 31.** Fiskeridirektoratet kan ved administration af denne bekendtgørelse meddele dispensation under hensyn til særlige forhold.

## Kapitel 15

### *Strafbestemmelser*

**§ 32.** Med bøde straffes den, der

- 1) overtræder eller forsøger at overtræde §§ 3, 4, 7, 8, 16, 18, 21, 22
- 2) tilsidesætter eller forsøger at tilsidesætte betingelser og vilkår knyttet til en tilladelse udstedt efter bekendtgørelsen eller
- 3) afgiver eller forsøger at afgive urigtige eller vildledende oplysninger, som afkræves efter bekendtgørelsen.

*Stk. 2.* Der kan pålægges selskaber m.v. (juridisk personer) strafansvar efter reglerne i straffelovens kapitel 5.

## Kapitel 16

### *Ikrafttrædelsesbestemmelser*

**§ 33.** Bekendtgørelsen træder i kraft den 1. januar 2009, dog træder §§ 3, 4, 7 og 8 i kraft den 1. juli 2009.

*Stk. 2.* Den 1. juli 2009 ophæves:

- 1) § 7 i bekendtgørelse nr. 18 af 14. januar 1993 om trawl og andet vodfiskeri.
- 2) § 2, stk. 4, og § 8, stk. 2. i bekendtgørelse nr. 769 af 9. juli 2004 om fredningsbælter og om ophævelse af lov om saltvandsfiskeri.



B) Provision on recreational fishing in marine- and freshwater and fixed gear fishing etc. in freshwater. (In Danish).

## **Bekendtgørelse om rekreativt fiskeri i salt- og ferskvand samt redskabsfiskeri mv. i ferskvand**

I medfør af § 27, stk. 1, § 32, stk. 1 og 3, § 50, stk. 2, § 56, stk. 5 og 6, § 64, stk. 1, § 71, § 109, stk. 1, § 112 b, § 117 b og § 130, stk. 2 og 4, i lov om fiskeri og fiskeopdræt (fiskeriloven), jf. lovbekendtgørelse nr. 978 af 26. september 2008, og efter bemyndigelse, fastsættes:

### Kapitel 1

#### *Definitioner mv.*

**§ 1.** Ved lystfiskeri i salt- og ferskvand forstås i denne bekendtgørelse: Alt fiskeri med lette håndredskaber, jf. § 26 i fiskeriloven.

**§ 2.** Ved fritidsfiskeri i saltvand forstås i denne bekendtgørelse: Fiskeri, der udøves af personer, der

- 1) ikke er registreret som erhvervsfisker med A-status eller bierhvervsfisker, eller som ikke er særligt fiskeriberettiget i henhold til §§ 24 og 25 i fiskeriloven, jf. § 27, stk. 1, i fiskeriloven, og
- 2) fisker med andre redskaber end lette håndredskaber.

**§ 3.** Ved fritidsfiskeri i ferskvand forstås i denne bekendtgørelse: Alt fiskeri i ferskvand, bortset fra

- 1) fiskeri med lette håndredskaber, og
- 2) fiskeri, der er omfattet af tilladelse til omsætning af fisk fra ferske vande, jf. § 27, stk. 2, i fiskeriloven.

**§ 4.** Udover bekendtgørelsens regler skal i øvrigt overholdes alle de regler, der i henhold til fiskerilovgivningen gælder vedrørende fiskeri.

### Kapitel 2

#### *Personkreds*

**§ 5.** Lystfiskeri må kun udøves af personer, der har gyldigt lystfiskertegn, jf. § 54 i fiskeriloven.

*Stk. 2.* Undtaget fra bestemmelsen i stk. 1 er personer, der

- 1) er under 18 år, jf. § 54, stk. 1, i fiskeriloven,
- 2) har ret til folkepension, jf. § 54, stk. 1, i fiskeriloven,
- 3) har gyldigt fritidsfiskertegn, jf. § 54, stk. 3, i fiskeriloven,
- 4) fisker i ferske vande, der ejes af enkeltpersoner, det offentlige, selskaber eller lignende, og som ikke har afløb til sø, å eller strand, eller hvis afløb er af en sådan beskaffenhed, at fisk ikke kan passere det, jf. § 55, stk. 1, i fiskeriloven,

- 5) er grundejer ved ferske vande samt den pågældendes husstand, når fiskeriet udøves i det fiskevand, der støder op til grunden, jf. § 55, stk. 2, i fiskeriloven, eller
- 6) er grundejer ved saltvand samt den pågældendes husstand, når fiskeriet finder sted under ophold på den strandbred, der er omfattet af grunden, jf. § 55, stk. 3, i fiskeriloven.

**§ 6.** Fritidsfiskeri i saltvand må kun udøves personligt af personer, der

- 1) er fyldt 12 år,
- 2) har fast bopæl her i landet,
- 3) ikke er registreret som erhvervsfiskere med A-status eller bierhvervsfiskere og
- 4) har gyldigt fritidsfiskertegn.

*Stk. 2.* Betingelsen i stk. 1, nr. 2, om fast bopæl her i landet gælder ikke for personer, som er omfattet af Det Europæiske Fællesskabs og EØS's regler om etablering, arbejdskraftens frie bevægelighed og udveksling af tjenesteydelser, bl.a. via arbejde her i landet og som derved har opnået en nærmere tilknytning til landet.

**§ 7.** Fritidsfiskeri i ferskvand må kun udøves af personer, der har erhvervet gyldigt fritidsfiskertegn, jf. § 54, stk. 2, i fiskeriloven.

*Stk. 2.* Undtaget fra bestemmelsen i stk. 1 er:

- 1) Personer, der fisker i vande, der ejes af enkeltpersoner, det offentlige, selskaber eller lignende, og som ikke har afløb til sø, å eller strand, eller hvis afløb er af en sådan beskaffenhed, at fisk ikke kan passere det, jf. § 55, stk. 1, i fiskeriloven.
- 2) Grundejeren og dennes husstand, når fiskeriet udøves i det fiskevand, der støder op til grunden, jf. § 55, stk. 2, i fiskeriloven.

### Kapitel 3

#### *Administration og betaling af lystfisker- og fritidsfiskertegn*

**§ 8.** Lystfiskertegn kan efter § 56, stk. 2, i fiskeriloven erhverves med en gyldighedsperiode på

- 1) 12 måneder,
- 2) 1 uge eller
- 3) 1 dag.

*Stk. 2.* Prisen for lystfiskertegnet for 12 måneder er 140 kr., for 1 uge 100 kr. og for 1 dag 35 kr., jf. § 56, stk. 3, i fiskeriloven.

*Stk. 3.* Lystfiskertegn erhverves ved indbetaling af det i stk. 2 nævnte beløb

- 1) på giroindbetalingskort til Fiskeridirektoratets girokonto nr. 0 70 60 00,
- 2) hos et salgssted, som Fiskeridirektoratet har autoriseret,
- 3) ved fornyelse af et tidligere indbetalt fisketegn via BetalingsService, eller
- 4) via internet-hjemmeside: [www.fisketegn.dk](http://www.fisketegn.dk).

*Stk. 4.* Lystfiskertegn er gyldige fra betalingsdatoen. Der kan dog for dag- og ugetegn angives en senere gyldighedsdato, som dog ikke må være senere end 30 dag efter betalingsdatoen.

**§ 9.** Gyldigt lystfiskertegn er:

- 1) Giroindbetalingskort med postvæsenets eller et pengeinstituts kvittering for, at beløbet for 12 måneder, 1 uge eller 1 dag er betalt, når kvitteringen også indeholder lystfiskertegnets indehavers fornavn, efternavn og adresse.

- 2) Bevis for betalt lystfiskertegn fra et autoriseret salgssted, jf. § 8, stk. 3, nr. 2, med lystfiskertegnets indehavers fornavn, efternavn, adresse, lystfiskernummer samt gyldighedsperiode.
- 3) Bevis for betalt lystfiskertegn via internet-hjemmesiden [www.fisketegn.dk](http://www.fisketegn.dk).  
*Stk. 2.* Oplysning om det lystfiskernummer, der tildeles ved betalingen, er tilstrækkeligt bevis.

**§ 10.** Fritidsfiskertegn har en gyldighedsperiode på 12 måneder, jf. § 56, stk. 2, i fiskeriloven.

*Stk. 2.* Fritidsfiskertegn erhverves ved indbetaling af 275 kr., jf. § 56, stk. 4.

- 1) til Fiskeridirektoratets girokonto nr. 4 71 41 48 ved anvendelse af et specielt girokort med fortrykt fritidsfiskernummer,
- 2) hos et salgssted, som Fiskeridirektoratet har autoriseret,
- 3) ved fornyelse af et tidligere indbetalt fisketegn via BetalingsService, eller
- 4) via internet-hjemmesiden: [www.fisketegn.dk](http://www.fisketegn.dk).

*Stk. 3.* Fritidsfiskertegn er gyldige fra betalingsdatoen.

**§ 11.** Gyldigt fritidsfiskertegn er:

- 1) Giroindbetalingskort for 12 måneder med fritidsfiskernummer og med postvæsenets eller et pengeinstituts kvittering for, at beløbet er betalt, når kvitteringen også indeholder fritidsfiskerens fornavn, efternavn og adresse.
- 2) Bevis for betalt fritidsfiskertegn fra et autoriseret salgssted, jf. § 8, stk. 3, nr. 2, med fritidsfiskertegnets indehavers fornavn, efternavn, adresse, fritidsfiskernummer samt betalingsdato.
- 3) Bevis for betalt fritidsfiskertegn via internet-hjemmesiden [www.fisketegn.dk](http://www.fisketegn.dk).

*Stk. 2.* Oplysning om det fritidsfiskernummer, der tildeles ved betalingen, er tilstrækkeligt bevis.

**§ 12.** Hvis en person har indbetalt et beløb, der er forskelligt fra de i § 8, stk. 2, anførte, har pågældende erhvervet lystfiskertegn for den periode, der svarer til det nærmeste lavere beløb. Indbetalte beløb, der er mindre end 35 kr., gælder ikke som lystfiskertegn.

*Stk. 2.* Indbetalte beløb, der er højere end de fastsatte beløb for lystfisker- og fritidsfiskertegn, tilbagebetales kun til indbetaleren efter påkrav og dokumentation fra indbetaler for fejlindbetalingen.

**§ 13.** Ved erhvervelse af fisketegn skal cpr-nummer oplyses.

*Stk. 2.* Personer, der ikke har bopæl i Danmark og derfor ikke har cpr-nummer, skal oplyse fødselsdato.

**§ 14.** Bevis for betalt lystfiskertegn og fritidsfiskertegn, skal sammen med legitimation, som f.eks. kørekort eller sygesikringsbevis, medbringes under fiskeri, hvor lystfisker- eller fritidsfiskertegn kræves, jf. § 58 i fiskeriloven.

*Stk. 2.* Lystfisker- og fritidsfiskertegnet er personligt og må ikke overdrages til andre, og der må kun være påført en persons navn på hver kvittering, jf. § 58 i fiskeriloven.

**§ 15.** Personer, der efter § 47 skal indbetale et forhøjet beløb, skal indbetale dette til Fiskeridirektoratet ved brug af et særligt giroindbetalingskort, der udleveres af Fiskeridirektoratet.

Giroindbetalingskortet er påført indbetalerens fornavn, efternavn, adresse samt et lystfisker- eller fritidsfiskernummer.

*Stk. 2.* Kvittering for betalt forhøjet beløb efter stk. 1 gælder som lystfisker- eller fritidsfiskertegn for 12 måneder fra betalingsdatoen.

## Kapitel 4

### *Visse former for lystfiskeri i saltvand*

**§ 16.** Lystfiskeri med huggeredskaber (rykfiskeri) er ikke tilladt.

*Stk. 2.* Blusning og stangning af ål er ikke tilladt.

**§ 17.** Lystfiskeri med liner, der slæbes efter båd drevet ved motorkraft (trolling- og dørgenfiskeri), er ikke tilladt inden for en afstand af 100 meter fra lavvandslinien.

*Stk. 2.* Trolling- og dørgenfiskeri er endvidere ikke tilladt i Tempelkrogen i Isefjorden.

**§ 18.** Lystfiskeri fra båd drevet ved motorkraft eller fra kyst, hvor redskabets line spiles ud til siden med skovle, paravaner eller lignende, herunder oter, er ikke tilladt.

*Stk. 2.* Uanset forbudet i stk. 1 er det tilladt, uden for 100 meter fra lavvandslinien og uden for de i § 19, stk. 1, nævnte områder, direkte på fiskelinen at montere og ved fiskeriet at anvende indretninger, som er egnet til at spile redskabet. På liner, der er spilet som anført, må alene anvendes 1 endeagn (blink, spinner, wobler, flue eller lignende).

**§ 19.** I følgende områder gælder, udover bestemmelserne i §§ 16-18, særlige regler for lystfiskeri fra motordreven båd eller kyst:

- 1) I Isefjorden syd for en ret linie fra Kongsøre Næbbe til Kyndby Værket, (i området indgår Holbæk Fjord), og i Roskilde Fjord afgrænset ved en linie fra vestre mole ved Kulhuse til færgemolen ved Sølager.
- 2) Et område i Øresund afgrænset i nord af en linie retvisende øst af havnefyret på Rungsted Havn og i syd af en linie retvisende øst af det østligste havnefyrtårn på Vedbæk havn og afgrænset i øst af en linie 3 sømil fra lavvandslinien.
- 3) I Køge Bugt (fra Køge Sønakke til Brøndby Lystbådehavn) i området mellem kysten og de fastsatte bundgarnsgrænser, jf. bekendtgørelse nr. 13 af 11. januar 1999 om grænser for anbringelse af bundgarnsstader i Køge Bugt.

*Stk. 2.* Lystfiskeri fra båd drevet ved motorkraft i de i stk. 1 nævnte områder, hvor linen spiles ud til siden med skovle, paravaner eller lignende, herunder oter, er ikke tilladt.

*Stk. 3.* Ved lystfiskeri i de i stk. 1 nævnte områder, hvor linen slæbes efter en båd drevet ved motorkraft (trolling/dørgning), må der maksimalt anvendes 2 stænger pr. person, dog højst 4 stænger pr. båd.

## Kapitel 5

### *Fritidsfiskeres redskaber i saltvand*

**§ 20.** En fritidsfisker må i saltvand højst anvende 6 redskaber af følgende typer:

- 1) krogliner à 100 kroge,
- 2) garn (rødspætte-, tunge-, sild-, makrel- e.l.),
- 3) ruser (enkelte eller dobbelte) og

4) tejner.

*Stk. 2.* Af de i stk. 1 nævnte redskaber må højst 3 være garn.

*Stk. 3.* En redskabsrække må højst indeholde 6 redskaber, som alle skal tilhøre samme fritidsfisker.

*Stk. 4.* Det er ikke tilladt at anvende ruser, jf. stk. 1. nr. 3, i perioden fra den 10. maj til og med den 31. juli.

*Stk. 5.* Det er ikke tilladt at anvende krogliner, jf. stk. 1, nr. 1, i perioden fra den 1. maj til og med den 30. september.

**§ 21.** Kasteruser må ikke være ovenvandsruser, dvs. at ingen del af redskabet må rage op over vandskorpen. Kasteruser må højst måle 90 cm i den forreste rusebøjle. For alle slags ruseredskaber gælder det, at maskestørrelsen (helmaske) i radgarnet ikke må overstige 40 mm. I kasteruser skal der anvendes stoprist eller spærrenet efter de almindeligt gældende regler for saltvand.

**§ 22.** En af de i § 20, stk. 1, nr. 3, nævnte tilladte ruser må være en rejepæleruse.

*Stk. 2.* Rejepælerusen må anvendes som undervandsruse eller ovenvandsruse og skal have mindst 2 og højst 3 kalve. Maskestørrelsen i rusen må ikke overstige 30 mm (helmaske). Alle kalve skal være åbne som en firkant, og holdt på plads af 4 stillebånd. Forreste kalv skal være forsynet med en spærrerist eller et spærrenet med kvadratmasker på 36 x 36 mm.

*Stk. 3.* Rusen må være forsynet med en rad på højst 14 m og 2 arme på hver højst 2 m. Maskestørrelsen i rad og arme må ikke overstige 40 mm (helmaske).

*Stk. 4.* Forreste rusebøjle må højst være 90 cm. Der må ikke være loft eller bund ved indgangspartiet. Der må herudover ikke være tilføjelser til redskabet, herunder tag og bund.

*Stk. 5.* Rejepælerusen skal være forsynet med mindst 3 og højst 5 pæle.

*Stk. 6.* Rejepælerusen må ikke opstilles før den er anmeldt til Fiskeridirektoratet med angivelse af pladsens beliggenhed i WGS 84 Datum.

**§ 23.** Der må ikke opstilles ruser i fredningsbælter og skal ved opstilling i vedtægtsområder respektere vedtægtsbestemmelser, der er oprettet i medfør af tidligere lovgivning om saltvandsfiskeri.

**§ 24.** Bundsatte garn må ikke have en længde af over 45 m og en dybde af over 1,5 m. Flydende garn må ikke have en længde af over 45 m og en dybde af over 3 m. Garnlænker må højst bestå af 3 garn. Garn skal være forankrede eller på anden måde fastgjort til havbunden.

*Stk. 2.* I perioden 1. juli - 15. november (begge dage inklusive) er det kun tilladt at anvende garn, jf. § 20, stk. 1, nr. 2, hvis maskemål er:

- 1) 100 mm og derunder (helmaske) svarende til 50 mm og derunder (halvmaske), eller
- 2) 130 mm og derover (helmaske) svarende til 65 mm og derover (halvmaske).

**§ 25.** Under sejlads og fiskeri må hver fritidsfisker i båden kun medbringe de typer og det antal redskaber, det er tilladt at benytte ved fritidsfiskeri.

**§ 26.** En fritidsfisker må kun fiske med, røgte mv. redskaber, der er mærket med fiskerens eget navn, adresse og fiskerinumner, jf. §§ 27-28.

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### *Mærkning af fritidsfiskeres redskaber i saltvand*

§ 27. Ethvert fritidsfiskerredskab skal på et synligt sted over vandet være forsynet med et forsvareligt fastgjort mærke med brugerens navn og adresse, skrevet med 1 cm høje, tydeligt læselige blokbogstaver på og med saltvandsbestandigt materiale. Mærket skal være gult.

*Stk. 2.* Redskabsmærker på stager, pæle og lignende skal anbringes mindst 1,2 m over vandet.

§ 28. Udover det i § 27 omhandlede redskabsmærke skal ethvert fritidsfiskerredskab være forsynet med fiskerinummeret på brugerens fritidsfiskertegn. Nummeret må kun anvendes af indbetaleren.

*Stk. 2.* Fiskerinummeret skal på et synligt sted over vandet være indskåret, indbrændt eller skrevet med saltvandsbestandigt tusch eller blæk med 2 cm høje tal på det gule redskabsmærke eller i den samme pæl, stage, bøjle eller det samme flod, som redskabsmærket er fastgjort til.

## Kapitel 6

### *Redskaber i ferskvand*

#### *Generelt om redskaber ved fiskeri i ferskvand*

§ 29. I ferskvand er det tilladt at anvende ruser i perioden fra den 1. august til og med den 15. oktober.

*Stk. 2.* Anvendelse af ruser uden for den i stk. 1 nævnte periode er kun tilladt for personer, der har særskilt tilladelse hertil i henhold til bekendtgørelse om betingelserne for erhvervs-mæssigt fiskeri af ål i saltvand og ferskvand. Det vil fremgå af tilladelsen hvilke redskaber der må anvendes. I vandløb kan anvendelse af ruser til erhvervsmæssigt fiskeri dog kun tillades i perioden fra den 1. juni til og med den 30. november.

§ 30. Ruser, garnredskaber, fiskegårde samt andre redskaber, skal sættes således, at der er en redskabsfri strækning på mindst to tredjedele af vandets bredde det pågældende sted, jf. dog § 32, stk. 4. Bestemmelsen gælder i en hvilken som helst retning i forhold til den yderste del af redskabet eller redskaberne.

*Stk. 2.* Bestemmelsen i stk. 1, gælder også for opstilling af flere redskaber, når redskaberne står fra modsatte bredder og med mindre indbyrdes afstand i breddens retning end 100 m.

*Stk. 3.* Redskaberne nævnt i stk. 1 skal mindst stå med en indbyrdes afstand i breddens retning på 100 m. Hvis en bred, hvortil der hører en fiskeriret, har en samlet længde, der er mindre end 100 m, må der dog opstilles et redskab på fiskeriretten uanset, at den indbyrdes afstand i breddens retning til det nærmeste redskab herved bliver mindre end 100 m, dog må afstanden ikke være mindre end 50 m.

*Stk. 4.* Flere redskaber kan opstilles uden for hinanden på samme sted. I dette tilfælde betragtes redskaberne med hensyn til bestemmelserne i stk. 1-3 som et redskab, jf. stk. 5.

*Stk. 5.* Afstanden mellem redskaberne måles mellem de dele af redskabet, herunder arme, pæle og tove, der er nærmest.

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### *Redskaber i vandløb*

§ 31. Vodredskaber, herunder trawl, samt sættegarn, nedgarn, flydegarn, toggergarn o.lign. garnredskaber samt ruser og fiskegårde må ikke anvendes i åer, bække, kanaler, grøfter o.lign. vande.

§ 32. I de i § 31 nævnte vande er det tilladt i perioden fra den 1. august til og med den 15. oktober at anvende ruser, hvis fangståbning og arme vender mod strømmen, og kasteruser (dobbelte og enkelte).

*Stk. 2.* Mindstemaskemål i de i stk. 1, nævnte ruser skal være på 32 mm (helmaske) i bagrusen - efter sidste bøjle. Maskemålet er opfyldt, hvis der i rusen - mellem sidste og andensidste bøjle - er et vindue på 14 x 14 cm med det nævnte maskemål. Vinduet skal være placeret på rusens overside.

*Stk. 3.* Den forreste bøjle i de i stk. 1 nævnte ruser må ikke have en diameter, der er større end 90 cm. Den forreste bøjle i kasterusen efter stk. 1 må højst have en diameter på 60 cm.

*Stk. 4.* I vandløb skal den redskabsfri strækning efter § 30, stk. 1, være sammenhængende.

§ 33. Bestemmelserne i §§ 31 og 32 finder anvendelse for alle redskaber uanset materiale, herunder for redskaber fremstillet af tremmeværk eller lignende samt i forbindelse med redskaber, stående boblerad, luftslør og andet, der tjener til at lede fisken ind i redskabet.

### *Redskaber i søer*

§ 34. Sættegarn, nedgarn, flydegarn o.lign. garnredskaber må ikke anvendes i søer i april og maj måneder.

*Stk. 2.* I garn, der anvendes i søer, skal maskemålet overalt i redskabet være mindst 122 mm (helmaske).

*Stk. 3.* Ruseredskaber, der anvendes til andet fiskeri end ålefiskeri, må også uden for den i § 29, stk. 1 nævnte periode anvendes på følgende betingelser:

Maskemålet i bagrusen – efter sidste bøjle – skal være på mindst 90 mm (helmaske).

Maskemålet er opfyldt, hvis der i rusen – mellem sidste og anden sidste bøjle – er et vindue på 14 x 14 cm med det nævnte maskemål. Vinduet skal være placeret på rusens overside.

*Stk. 4.* Ruseredskaber, der anvendes til andet fiskeri end ålefiskeri skal før brug anmeldes til Fiskeridirektoratet. Anmeldelsen skal indeholde oplysning om antal, størrelse, udformning og placering af redskaberne opgivet i WGS 84 Datum. Fiskeridirektoratet kan beslutte, at et redskab ikke kan tillades anvendt, hvis det ikke er tilstrækkelig godtgjort, at redskabet ikke kan fange ål.

§ 35. Vod- og tilsvarende redskaber, der drages eller slæbes i en sø, må ikke spænde ud over en tredjedel af søens bredde.

*Stk. 2.* Det er ikke tilladt at ilandbringe ål fanget ved fiskeri med vod- og tilsvarende redskaber.

### *Ålekister o. lign.*

§ 36. Fiskeri med ålekister og andre spærrende fangstindretninger, som ikke opfylder reglerne nævnt i § 30, stk. 1, og som var anmeldt i henhold til fiskeriloven, kan fortsat anvendes.

*Stk. 2.* De i stk. 1 nævnte fangstindretninger må anvendes i perioden fra den 1. august til og med den 15. oktober. Fangstindretningerne skal holdes fuldstændig åbne og alle løse spærringer skal optages hver dag fra solopgang til solnedgang.

*Stk. 3.* I perioden fra den 16. oktober til og med den 31. juli skal de i stk. 1 nævnte fangstindretninger holdes fuldstændig åbne og alle løse spærringer skal være optaget hele døgnet.

*Stk. 4.* Inden 1. januar 2014 skal de i stk. 1 nævnte fangstindretninger været konstrueret, så de ikke kan tilbageholde ål. Indretningen skal godkendes af Fiskeridirektoratet.

*Stk. 5.* Fangstindretningen må ikke ændres uden Fiskeridirektoratets tilladelse.

### *Ikke tilladte fangstmetoder i ferskvand*

§ 37. Følgende redskaber og fangstmetoder må ikke anvendes:

- 1) Trawl og andre fiskeredskaber spilet med skovle eller lignende, herunder oterfiskeri.
- 2) Elektricitet, eksploderende, giftige eller bedøvende stoffer samt fiskeri ved tørlægning.
- 3) Stangning eller hugning ved kunstigt lys samt hel eller delvis spærring med lys eller elektricitet for fiskenes frie gang.
- 4) Stangeredskaber og lystre af enhver art - herunder ålekam - spyd og pile, der er forsynet med kroge eller krog-lignende anordninger beregnet til at fastholde den spiddede fisk, samt skrabepilk og skydevåben, idet dog fangstkrog til landing af fisk fanget med et andet redskab ikke er omfattet af forbudet.
- 5) Jagen (pulsning) af fisk i redskaber.
- 6) Fiskeri med huggeredskaber (rykfiskeri).

### *Stoprist eller stopnet*

§ 38. I redskaber, hvor der anvendes ruser, herunder i ålekister, o. lign. spærrende redskaber, skal der være anbragt et stopnet eller en stoprist i rusen efter stk. 2.

*Stk. 2.* Stopnet eller stoprist skal være udformet som følger:

- 1) Stopnet skal være anbragt i rusens forreste bøjle, idet nettets maskevidde højst må være 75 mm halvmaske (knode til knode).
- 2) Stopristen skal være af stål eller andet af Fiskeridirektoratet godkendt materiale og være monteret i forreste kalv med en ramme, stor 170 x 170 mm, og med et kryds, således at sidelængden i det enkelte hul i krydset ikke overstiger 85 mm.

### *Gudenå*

§ 39. I Gudenåen, herunder blinde løb, på strækningen fra Nørreå til Frisenvold Fiskegård er det kun tilladt at anvende lette håndredskaber til fiskeri.

### *Ordensregler og mærkning*

§ 40. Udsatte fiskeredskabers forankringer, pæle og afmærkninger skal være synlige og vise redskabets retning. Når fiskeri afsluttes eller afbrydes, må de benyttede pæle eller dele heraf



ikke stå til fare for sejladsen eller til hindring for udøvelsen af fiskeri. Fiskeriet anses ikke for afsluttet, når afbrydelsen sker i kortere tid for tørring eller udbedring af et redskab.

*Stk. 2.* Afbrækkede pæle skal straks optages af vandet af den, der sidst har benyttet pælene.

*Stk. 3.* Ikke pælesatte redskaber skal være forsynet med en rød flydekugle i hver ende. Kuglen skal have en diameter på min. 15 cm.

*Stk. 4.* Pæle, der benyttes til fiskeri, skal til enhver tid have en højde over vandoverfladen på mindst 1 meter. En af pælene skal være mærket i et vandbestandigt materiale med matr. nr. for den ejendom, der råder over fiskeriretten og med fiskerens navn og adresse. Kravet om mærkning gælder også for bøjer o.lign. på ikke pælesatte fiskeredskaber.

**§ 41.** Fritidsfiskere, der har pligt til at betale fritidsfiskertegn, skal endvidere på et synligt sted mærke deres redskaber på en af pælene med fritidsfiskernummeret, jf. § 10, stk. 2.

### *Fravigelser*

**§ 42.** Fiskeridirektoratet kan efter høring af de ansvarlige myndigheder i henhold til lov om vandløb og lov om miljømål m.v. i særlige tilfælde, hvor dokumenterede miljømæssige hensyn taler for det, dispensere fra bestemmelserne i §§ 30, 31, 34, 35, 37 og 38.

*Stk. 2.* Fiskeridirektoratet kan efter høring af de i stk. 1 nævnte myndigheder i særlige tilfælde, hvor dokumenterede erhvervmæssige hensyn taler for det, dispensere fra bestemmelserne i § 30, stk. 3, § 34, stk. 2 og § 37, stk. 1, nr. 1).

*Stk. 3.* Fiskeridirektoratet kan dispensere fra bestemmelserne i dette kapitel, når hensynet til klækkeanstaltens forsyning med rogn og indfangning af fisk til udsætningsformål taler for det.

**§ 43.** Fiskeridirektoratet kan efter høring af Danmarks Tekniske Universitet, Institut for Akvatiske Ressourcer, i særlige tilfælde for søer give enkeltpersoner, som har dispensation til at anvende ruser efter § 29, stk. 2, tilladelse til at anvende bundgarn eller bundgarnslignende redskaber uden de i § 38 nævnte anordninger, når rusehovedet står på større vanddybde end 3 m, hvor erhvervmæssige hensyn taler for det.

*Stk. 2.* Der kan i øvrigt gives de i stk. 1 nævnte personer dispensation fra bestemmelsen i § 38, hvis redskabet er opstillet i en sø, og er indrettet, således at der altid er et øvre frit luftrum i redskabet på min. 50 cm's højde mellem vandoverfladen og fangstindretningens overside, eller redskabet er indrettet, således at fangede pattedyr, herunder odder, kan undslippe.

## Kapitel 7

### *Autorisation mv.*

**§ 44.** Fiskeridirektoratet kan, når særlige forhold taler for det, efter høring af den ansvarlige myndighed i henhold til lov om vandløb, meddele autorisation til selskaber, foreninger og enkeltpersoner, der har tilladelse til at opfiske moderfisk med henblik på opdræt til fiskepleje og til selskaber, foreninger og enkeltpersoner, der har tilladelse til udsætning af fisk mv. med henblik på varetagelse af fiskepleje.

*Stk. 2.* En autoriseret kan i særlige tilfælde opnå tilladelse til at foretage fiskeri ved elektricitet efter fisk til opdrætsformål, uanset om den autoriserede råder over fiskeriretten, hvis egnet opdrætsmateriale ikke er til rådighed på anden måde. Autorisationen kan kun udnyttes af personer, der har gennemgået et kursus i fiskeri med elektricitet inden for de seneste 10 år.

*Stk. 3.* Efter § 64, stk. 2 i fiskeriloven har de autoriserede ret til mod forvisning af behørig legitimation at færdes over de jorder og private veje, som støder op til de vande, hvori udsætning skal findes sted.

*Stk. 4.* Autorisationen, der kan gives for indtil 5 år, kan tilbagekaldes, hvis den misbruges.

## Kapitel 8

### *Kontrol, straf og ikrafttræden mv.*

**§ 45.** Maskemål (helmaske) måles i henhold til gældende EU-regler.

**§ 46.** Fiskeridirektoratets registre over tilladelser til ålefiskeri og oplysninger om tilladte redskaber er offentligt tilgængelige.

**§ 47.** Med bøde straffes den, der

- 1) overtræder eller forsøger at overtræde §§ 16-21, § 22, stk. 2-5, §§ 23-41, eller
- 2) tilsidesætter eller forsøger at tilsidesætte vilkår fastsat i tilladelse efter bekendtgørelsen.

*Stk. 2.* Der kan pålægges selskaber mv. (juridiske personer) strafansvar efter reglerne i straffelovens 5. kapitel.

**§ 48.** Efter fiskerilovens § 60, skal personer, der udøver lystfiskeri eller fritidsfiskeri, og som ikke efterkommer kontrolmyndighedens krav om at forevise bevis for indbetaling og legitimation, senest 14 dage efter påkrav indbetale et beløb, der for lystfiskere svarer til fire gange prisen på et lystfiskertegn for 12 måneder, og for fritidsfiskere et beløb, der svarer til fire gange prisen på et fritidsfiskertegn.

*Stk. 2.* Hvis gyldigt lyst- eller fritidsfiskertegn allerede var betalt, da fiskeriet fandt sted, og bevis herfor forevises sammen med legitimation over for Fiskeridirektoratet senest 14 dage efter påkrav, skal der for lystfiskere indbetales et beløb, der svarer til halvdelen af prisen på et lystfiskertegn for 12 måneder. For fritidsfiskere skal der indbetales et beløb, der svarer til halvdelen af prisen på et fritidsfiskertegn.

**§ 49.** Bekendtgørelsen træder i kraft den 1. februar 2009, dog træder §§ 8 – 15 og § 48 i kraft den 1. januar 2009. Bekendtgørelsen gælder indtil 31. december 2013.

*Stk. 2.* Bekendtgørelse nr. 1336 af 15. december 2004 om rekreativt fiskeri i salt- og ferskvand samt redskabsfiskeri mv. i ferskvand ophæves.



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