

### 3.12.6.g Orange roughy (*Hoplostethus atlanticus*)

**State of the stock/fishery:** The stock in Sub-area VI is outside safe biological limits. Biomass estimated from a Schaefer Production model (1,800 t) is only a little more than half of the  $B_{msy}$ . The situation in Sub-area VII appears to be less serious. Landings have stabilised but this may reflect a sequential discovery and subsequent fishing of previously unexploited aggregations. The state of stocks in other areas is unknown. CPUE trends are shown in Figure 3.12.6.g.1.

**Advice on management:** Orange roughy stocks can only sustain very low rates of exploitation. ICES repeats its general recommendation in Section 3.12.6.1 that fisheries on such species be permitted only when they expand very slowly, and are accompanied by programs to collect data which allow evaluation of stock status.

**Relevant factors to be considered in management:** Orange roughy are known to grow to be very old (estimated 100 y) and experience in other areas (e.g. South Pacific) has shown that this species is especially vulnerable to exploitation.

**Catch data (Table 3.12.6.g.1):**

Year	ACFM Catch
1988	0
1989	+
1990	+
1991	5
1992	5
1993	3
1994	2
1995	2
1996	2
1997	2
1998	2
1999*	1

\*Preliminary. Weights in '000 t.

**Elaboration and special comment:** There are currently three fisheries for orange roughy in the North East Atlantic. The main fishery is by French trawlers in ICES Sub-areas VI & VII. There is also a Faroese fishery which has now extended to international waters (Hatton Bank and mid-Atlantic ridge) and a small Icelandic fishery which has now almost ceased. The French fishery in Sub-area VI started in 1991, and after an initial peak (3 502 t) landings quickly declined to less than 200 t per annum. French landings from Sub-area VII peaked in 1992 at around 3 100 t and in recent years have stabilised at around 1000 t per annum. The main fishery is on spawning aggregations.

Summaries of the total landings for all areas and by Sub-area/Division are given in Figures 3.12.6.1–10. Landings by Sub-area/Division and nation are given in Tables 3.12.6.g.1.

**Source of information:** Report of the Study Group on the Biology and Assessment of Deep-Sea Fisheries Resources, February 2000 (ICES CM 2000/ACFM:08).

**Table 3.12.6.g.1** Orange roughy (*Hoplostethus atlanticus*).  
Study Group estimates of landings (tonnes).

**ORANGE ROUGHY (*Hoplostethus atlanticus*) Va**

Year	Iceland	TOTAL
1988		<b>0</b>
1989		<b>0</b>
1990		<b>0</b>
1991	65	<b>65</b>
1992	382	<b>382</b>
1993	717	<b>717</b>
1994	158	<b>158</b>
1995	64	<b>64</b>
1996	40	<b>40</b>
1997	79	<b>79</b>
1998	28	<b>28</b>
1999*		<b>0</b>

\*Provisional

**ORANGE ROUGHY (*Hoplostethus atlanticus*) Vb**

Year	Faroes	France	TOTAL
1988		-	<b>0</b>
1989		-	<b>0</b>
1990		22	<b>22</b>
1991		48	<b>48</b>
1992	1	12	<b>13</b>
1993	36	1	<b>37</b>
1994	170	+	<b>170</b>
1995	419	1	<b>420</b>
1996	77	2	<b>79</b>
1997	17	1	<b>18</b>
1998		3	<b>3</b>
1999*		4	<b>4</b>

\*Provisional

**ORANGE ROUGHY (*Hoplostethus atlanticus*) VI**

Year	Faroes	France	E & W	Scotland	Ireland	Spain	TOTAL
1988							<b>0</b>
1989		5					<b>5</b>
1990		15					<b>15</b>
1991		3502					<b>3502</b>
1992		1422					<b>1422</b>
1993		429					<b>429</b>
1994		179					<b>179</b>
1995	40	74			2		<b>116</b>
1996	0	116			0		<b>116</b>
1997	29	116	1				<b>146</b>
1998		100				2	<b>102</b>
1999*		130			65	1	<b>196</b>

\*Provisional

**Table 3.12.6.g.1 continued**

**ORANGE ROUGHY (*Hoplostethus atlanticus*) VII**

Year	France	Spain	TOTAL
1988			<b>0</b>
1989	3		<b>3</b>
1990	2		<b>2</b>
1991	1406		<b>1406</b>
1992	3101		<b>3101</b>
1993	1668		<b>1668</b>
1994	1722		<b>1722</b>
1995	831		<b>831</b>
1996	879		<b>879</b>
1997	893		<b>893</b>
1998	963	6	<b>969</b>
1999*	1201	4	<b>1205</b>

\*Provisional

**ORANGE ROUGHY (*Hoplostethus atlanticus*) VIII**

Year	France	Spain VIII+IX	TOTAL
1988			<b>0</b>
1989	0		<b>0</b>
1990	0		<b>0</b>
1991	0		<b>0</b>
1992	83		<b>83</b>
1993	68		<b>68</b>
1994	31		<b>31</b>
1995	7		<b>7</b>
1996	22		<b>22</b>
1997	1	26	<b>27</b>
1998	4	11	<b>15</b>
1999*	3	7	<b>10</b>

\*Provisional

**ORANGE ROUGHY (*Hoplostethus atlanticus*) X**

Year	Faroes	France	Norway	TOTAL
1988				<b>0</b>
1989			-	<b>0</b>
1990			-	<b>0</b>
1991			-	<b>0</b>
1992			-	<b>0</b>
1993			1	<b>1</b>
1994			-	<b>0</b>
1995			-	<b>0</b>
1996	470	1		<b>471</b>
1997	6	-		<b>6</b>
1998	177	-		<b>177</b>
1999*		-		<b>0</b>

\*Provisional

**Table 3.12.6.g.1 continued**

**ORANGE ROUGHY (*Hoplostethus atlanticus*) XII**

Year	Faroes	France	Iceland	Spain	TOTAL
1988					<b>0</b>
1989		0			<b>0</b>
1990		0			<b>0</b>
1991		0			<b>0</b>
1992		8			<b>8</b>
1993	24	8			<b>32</b>
1994	89	4			<b>93</b>
1995	580	96			<b>676</b>
1996	779	36	3		<b>818</b>
1997	802	6			<b>808</b>
1998	570	59			<b>629</b>
1999*		27		43	<b>70</b>

\*Provisional

**Figure 3.12.6.g.1** Orange Roughy. Standardised CPUE (kg/h) from a reference fleet of French deep-water trawlers in ICES Sub-areas VI and VII

