**Stock: Saithe in Sub-area IV (North Sea) and Division IIIa (Skagerrak)**

**Assessment Quality Control Diagram 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Average F(3-6,u) | | | | | | | | | | | | | | | |
| Date of assessment | | Year | | | | | | | | | | | | | |
|  | 1988 | | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| 1989 | 0.40 | |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 | 0.51 | | 0.39 |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 | 0.65 | | 0.72 | 0.64 |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 | 0.67 | | 0.75 | 0.65 | 0.73 |  |  |  |  |  |  |  |  |  |  | |
| 1993 | 0.67 | | 0.73 | 0.59 | 0.59 | 0.59 |  |  |  |  |  |  |  |  |  | |
| 1994 | 0.65 | | 0.69 | 0.51 | 0.55 | 0.60 | 0.48 |  |  |  |  |  |  |  |  | |
| 1995 | 0.66 | | 0.72 | 0.56 | 0.60 | 0.68 | 0.55 | 0.45 |  |  |  |  |  |  |  | |
| 1996 | 0.65 | | 0.71 | 0.54 | 0.56 | 0.58 | 0.48 | 0.48 | 0.43 |  |  |  |  |  |  | |
| 1997 | 0.65 | | 0.67 | 0.60 | 0.57 | 0.65 | 0.54 | 0.51 | 0.44 | 0.50 |  |  |  |  |  | |
| 1998 | 0.64 | | 0.67 | 0.60 | 0.57 | 0.66 | 0.55 | 0.54 | 0.46 | 0.53 | 0.51 |  |  |  |  | |
| 1999 | 0.59 | | 0.62 | 0.59 | 0.58 | 0.62 | 0.49 | 0.50 | 0.44 | 0.46 | 0.36 | 0.45 |  |  |  | |
| 2000 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2001 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2002 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |

**Remarks:**

**Stock: Saithe in Sub-area IV (North Sea) and Division IIIa (Skagerrak)**

**Assessment Quality Control Diagram 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recruitment (age 1) Unit: millions | | | | | | | | | | | | | | | |
| Date of assessment | Year class | | | | | | | | | | | | | | |
|  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| 1989 | 237 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1990 | 230 | 232 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | 212 | 211 | 211 |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | 308 | 214 | 214 | 214 |  |  |  |  |  |  |  |  |  |  |
| 1993 | 201 | 108 | 191 | 191 | 191 |  |  |  |  |  |  |  |  |  |
| 1994 | 203 | 128 | 198 | 214 | 204 | 206 |  |  |  |  |  |  |  |  |
| 1995 | 199 | 146 | 262 | 136 | 160 | 204 | 245 |  |  |  |  |  |  |  |
| 1996 | 214 | 141 | 233 | 152 | 232 | 115 | 221 | 220 |  |  |  |  |  |  |
| 1997 | 198 | 141 | 224 | 139 | 234 | 127 | 179 | 176 | 167 |  |  |  |  |  |
| 1998 | 197 | 139 | 217 | 136 | 277 | 102 | 119 | 242 | 155 | 155 |  |  |  |  |
| 1999 | 200 | 141 | 222 | 141 | 320 | 144 | 170 | 97 | 160 | 160 | 160 |  |  |  |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Geometric average recruitment.

RCT3 estimates.

GM(87-96)

**Stock: Saithe in Sub-area IV (North Sea) and Division IIIa (Skagerrak)**

**Assessment Quality Control Diagram 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spawning stock biomass ('000 t) | | | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | | | |
|  | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | |
| 1989 | 236 | 244 | 240 |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 | 122 | 166 | 206 | 233 |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 | 87 | 74 | 70 | 79 | 85 |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 | 82 | 66 | 56 | 68 | 83 | 79 |  |  |  |  |  |  |  |  |  |  | |
| 1993 | 84 | 69 | 70 | 81 | 81 | 76 | 85 |  |  |  |  |  |  |  |  |  | |
| 1994 | 90 | 81 | 82 | 91 | 105 | 99 | 115 | 125 |  |  |  |  |  |  |  |  | |
| 1995 | 89 | 78 | 78 | 84 | 95 | 99 | 134 | 141 | 150 |  |  |  |  |  |  |  | |
| 1996 | 88 | 78 | 79 | 89 | 105 | 113 | 139 | 143 | 163 | 164 |  |  |  |  |  |  | |
| 1997 | 87 | 80 | 81 | 87 | 93 | 104 | 122 | 120 | 134 | 128 | 130 |  |  |  |  |  | |
| 1998 | 89 | 82 | 83 | 89 | 94 | 104 | 114 | 116 | 135 | 132 | 125 | 134 |  |  |  |  | |
| 1999 | 98 | 98 | 98 | 103 | 99 | 109 | 125 | 142 | 174 | 156 | 177 | 153 | 152 |  |  |  | |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

Forecast.

**Remarks:**