

Recruits (age 1, millions)

80000
60000
40000
20000
0

0

1000

2000

3000

4000

Female spawning biomass (kt)

2018

1978

2008

1992

1982

2012

2013

1989

1980

1977

2009

1991

2006

1990

2001

1999

2000

1984

1996

1964

1966

1967

1968

1974

1976

1975

1972

1973

1970

1981

2010

1971

2007

2011

2020

2021

2014

2019

2022

1965

1976

1975

1974

1973

1972

1971

1970

1969

1968

1967

1966

1965

1964

1963

1962

1961

1960

1959

1958

1957

1956

1955

1954

1953

1952

1951

1950

1949

1948

1947

1946

1945

1944

1943

1942

1941

1940

1939

1938

1937

1936

1935

1934

1933

1932

1931

1930

1929

1928

1927

1926

1925

1924

1923

1922

1921

1920

1919

1918

1917

1916

1915

1914

1913

1912

1911

1910

1909

1908

1907

1906

1905

1904

1903

1902

1901

1900

1899

1898

1897

1896

1895

1894

1893

1892

1891

1890

1889

1888

1887

1886

1885

1884

1883

1882

1881

1880

1879

1878

1877

1876

1875

1874

1873

1872

1871

1870

1869

1868

1867

1866

1865

1864

1863

1862

1861

1860

1859

1858

1857

1856

1855

1854

1853

1852

1851

1850

1849

1848

1847

1846

1845

1844

1843

1842

1841

1840

1839

1838

1837

1836

1835

1834

1833

1832

1831

1830

1829

1828

1827

1826

1825

1824

1823

1822

1821

1820

1819

1818

1817

1816

1815

1814

1813

1812

1811

1810

1809

1808

1807

1806

1805

1804

1803

1802

1801

1800

1799

1798

1797

1796

1795

1794

1793

1792

1791

1790

1789

1788

1787

1786

1785

1784

1783

1782

1781

1780

1779

1778

1777

1776

1775

1774

1773

1772

1771

1770

1769

1768

1767

1766

1765

1764

1763

1762

1761

1760

1759

1758

1757

1756

1755

1754

1753

1752

1751

1750

1749

1748

1747

1746

1745

1744

1743

1742

1741

1740

1739

1738

1737

1736

1735

1734

1733

1732

1731

1730

1729

1728

1727

1726

1725

1724

1723

1722

1721

1720

1719

1718

1717

1716

1715

1714

1713

1712

1711

1710

1709

1708

1707

1706

1705