

Figure 1. Statistical Areas used for reporting of commercial fishery data in the Northeast Region and federal (Exclusive Economic Zone) and state ( $0-3$ nautical miles) jurisdictional limits.


Figure 2. Landings (000s mt) of Doryteuthis pealeii, by the USA directed fishery (1987-2022) and Distant Water Fleets (1963-1986), in NAFO Subareas 5+6 during 1963-2022 and annual TACs during1974-2023. In-season quotas were quarterly-based during 2001-2006 and trimesterbased during 2000 and 2007-2022.


Figure 3. Percentage of Doryteuthis pealeii landings, by month, during different management regimes: 1987-1995 (annual quotas with no mandatory landings reporting), 1996-1999 (annual quotas with mandatory landings reporting), and 2001-2006 (quarterly quotas) and 2000, 20072022 (trimester quotas). Rollovers of Trimester 1 quota underages to Trimesters 2 and 3 have been allowed since 2010. The 2020-2022 CAMS landings are shown for monthly trend comparison with the 2000/2007-2019 period of trimester landings.


Figure 4. Percentages of Doryteuthis pealeii landings, by trimester, during 2000 and 2007-2022 when trimester-based quotas were in effect. Asterisks indicate a fishery closure during a portion of the trimester. The 2012 fishery closure during a portion of Trimester 1 was due to harvesting the incidental catch cap of Atlantic butterfish (Peprilus triacanthus). During 2007-2009, Trimester 1 quota underages were applied to Trimester 3. As of 2010, Trimester 1 quota underages were required to be evenly distributed between Trimesters 2 and 3. Regulatory quota allocations for T1T3 ( $43 \%, 17 \%$ and $40 \%$, respectively) are shown in relation to the actual landings by trimester, which indicates that landings during the T 2 spawning period have been at least double the regulatory quota limit since implementation of the T 1 quota rollover regulation.


Figure 5. Doryteuthis pealeii total discards (mt) during 1989-2022. The dashed line represents the 1989-2021 average. Discards for 1989-2019 and 2020-2022 were estimated using different methods and databases.


Figure 6. Doryteuthis pealeii landings, discards and catches (000s mt) during 1963-2022 and TACs ( 000 s mt ) during 1974-2023. The dashed line represents the average catch during 19872021, the period of the US directed fishery.


Figure 7. Doryteuthis pealeii q-adjusted swept-area biomass, in 000 s mt , for the two intra-annual cohorts caught in NEFSC spring and fall bottom trawl surveys. Biomas medians are shown for 1987-2022, the period of the US directed fishery.


Figure 8. Doryteuthis pealeii biomass estimates (mt) for the cohorts caught in the NEFSC spring and fall surveys in relation to catches by the Jan-June and July-Dec fisheries and the respective BMSY and Bthreshold proxies during 1987-2022 (the US directed fishery period). Biomass estimates are q-adjusted swept-area estimates and the green and pink lines represent the two-year moving average biomass for each cohort. The 2022 values were used to determine stock status.


Figure 9. Doryteuthis pealeii exploitation indices for the January-June fishery (Jan-June catch/NEFSC spring survey biomass, in mt ) and the July-December fishery (July-Dec catch/NEFSC fall survey biomass, in mt), during 1987-2022. The orange and purple lines represent the catches ( mt ) for each respective fishery/the two-year moving average biomass ( mt ) for each respective survey cohort. Biomass estimates are $q$-adjusted swept area estimates.


Figure 10. Doryteuthis pealeii annualized biomass estimates (averages of the NEFSC spring and fall survey biomasses, in mt ), in relation to the BMSY ( $42,205 \mathrm{mt}$ ) and Bthreshold proxies, and annual catches during 1987-2022 (the US directed fishery period). The red line represents the twoyear moving average of the annualized biomass estimates which were not used to determine stock status because the Level 3 Management Track assessment review panel recommended cohortspecific Reference Points and rejected the annualized biomass Reference Points. Biomass estimates are $q$-adjusted swept area estimates.


Figure 11. Doryteuthis pealeii annualized exploitation indices (annual catch/annual mean of NEFSC spring and fall survey biomass estimates, in mt) during 1987-2022. The blue line represents the two-year moving average of the annualized exploitation indices. Biomass estimates are $q$-adjusted swept area estimates. See Figure 10 caption.

