



***Illex* Fishery Information Document**

February 2022

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for *Illex* squid with an emphasis on 2021. Data sources for Fishery Information Documents include unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For more resources, including previous Fishery Information Documents, please visit <http://www.mafmc.org/msb>.

Key Facts

- 2021 was the fifth banner year in a row for *Illex*. 2017-2021 represent a unique sequence in the history of the fishery of consecutive “boom” *Illex* years.
- Price and landings, and therefore revenues, were up in 2021 compared to 2020.
- Substantial variability is to be expected with any squid species.
- A soon-to-be-reviewed stock assessment should provide guidance for 2023 – in March 2022 the SSC will be considering if any adjustments are appropriate for just 2022, based on previous analyses but with an expanded range.

Basic Biology

Illex is a semi-pelagic/semi-demersal schooling cephalopod species distributed between Newfoundland and the Florida Straits, and lives less than one year. *Illex* is a semelparous, terminal spawner whereby spawning and death occur within several days of mating. The northern stock component, located north of the USA-Canada border in NAFO Subareas 3 and 4, is assessed annually and is managed by the Northwest Atlantic Fisheries Organization (NAFO), though landings have been relatively low in recent years and staff has questioned the usefulness of the recent NAFO assessments (https://www.mafmc.org/s/g_NAFO_Didden.pdf). The southern/U.S. stock component is located in NAFO Subareas 5 and 6 between the Gulf of Maine and Cape Hatteras, NC and is managed by the Mid-Atlantic Fishery Management Council (the Council or MAFMC). Additional life history information is detailed in the EFH document for the species, located at: <http://www.nefsc.noaa.gov/nefsc/habitat/efh/>.

Status of the Stock

The status of *Illex* is unknown with respect to being overfished or not, and unknown with respect to experiencing overfishing or not. Results from the NEFSC Trawl surveys are highly variable

and without apparent long-term trend. Analysis reviewed by the Council’s SSC have supported quota increases in recent years, in 2021 finding: “Based on evidence presented to it, including patterns that suggest an increase in abundance, low levels of exploitation, and catches that have been constrained by existing ABCs for the last four years, the SSC continues to believe that the *Illex* stock is at a high level of abundance and experiencing a low exploitation rate.”

<https://www.mafmc.org/ssc-meetings/2021/may-11-12>

An *Illex* research track assessment is pending review and may provide additional guidance for setting quotas in 2023 and beyond.

Management System and Fishery Performance

Management

The Council established management of *Illex* in 1978 and the management unit includes all federal East Coast waters.

Access is limited with moratorium permits. Trip limits are triggered when the quota is approached. Incidental permits are limited to 10,000 pounds per trip. Additional summary regulatory information is available at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/resources-fishing/resources-fishing-greater-atlantic-region>. A 2020 action to change *Illex* permitting is in the rulemaking process and a proposed rule is expected in 2022 – see <https://www.mafmc.org/newsfeed/2020/council-approves-changes-to-management-of-illex-fishery>.

The current quota is 31,478 MT, based on a 33,000 MT Acceptable Biological Catch (ABC) and a 4.52% discard rate (the mean plus one standard deviation of the most recent 10 years of observed discard rates in the last assessment). Recent SBRM discard rates have been similar, though are not based on calendar years. The fishery closes when 95% of the quota is projected to be landed and in 2021 closed effective 0001 hour August 30, 2021. In 2021 97.6% of the quota was landed.

Recreational catch of *Illex* is believed to be negligible. There are no recreational regulations except for party/charter vessel permits and reporting.

Commercial Fishery

Figure 1, from a previous Science Center data update, describes *Illex* catch 1963-2019 and highlights the early foreign fishery and then domestication of the fishery. Figures 2-3 describe domestic landings, ex-vessel revenues, and prices (inflation adjusted) since 1996. Figure 4 illustrates preliminary weekly 2020 (yellow-orange) and 2021 (blue) landings through the year.

Table 1 describes 2021 *Illex* landings by state, and Table 2 describes 2021 *Illex* landings by gear type. Table 3 provides preliminary information on *Illex* landings by statistical area for 2021.

Table 4 describes vessel participation over time.

The Gross Domestic Product Implicit Price Deflator was used to report revenues/prices as “2021 dollars.”

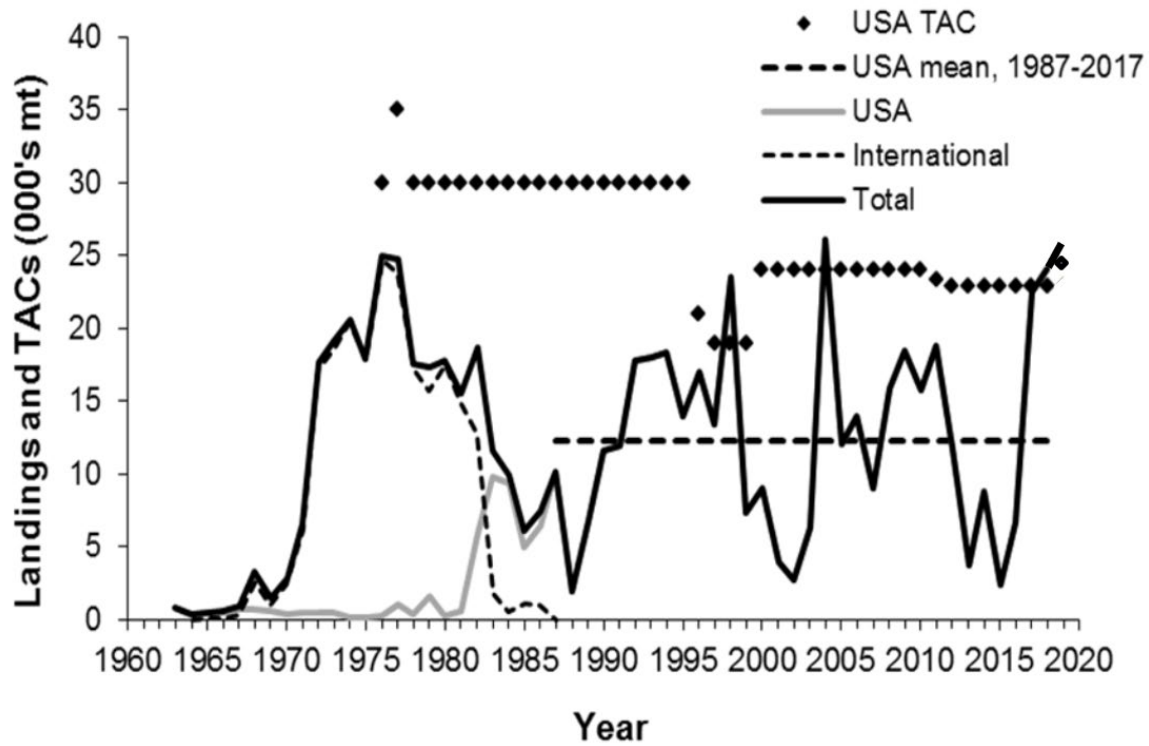


Figure 1. Total annual *Illex* landings (mt) by the U.S. and other countries for 1963-2019. Sources: NEFSC *Illex* Data update, available at <http://www.mafmc.org/ssc-meetings/2018/may-8-9> and NMFS unpublished dealer data.

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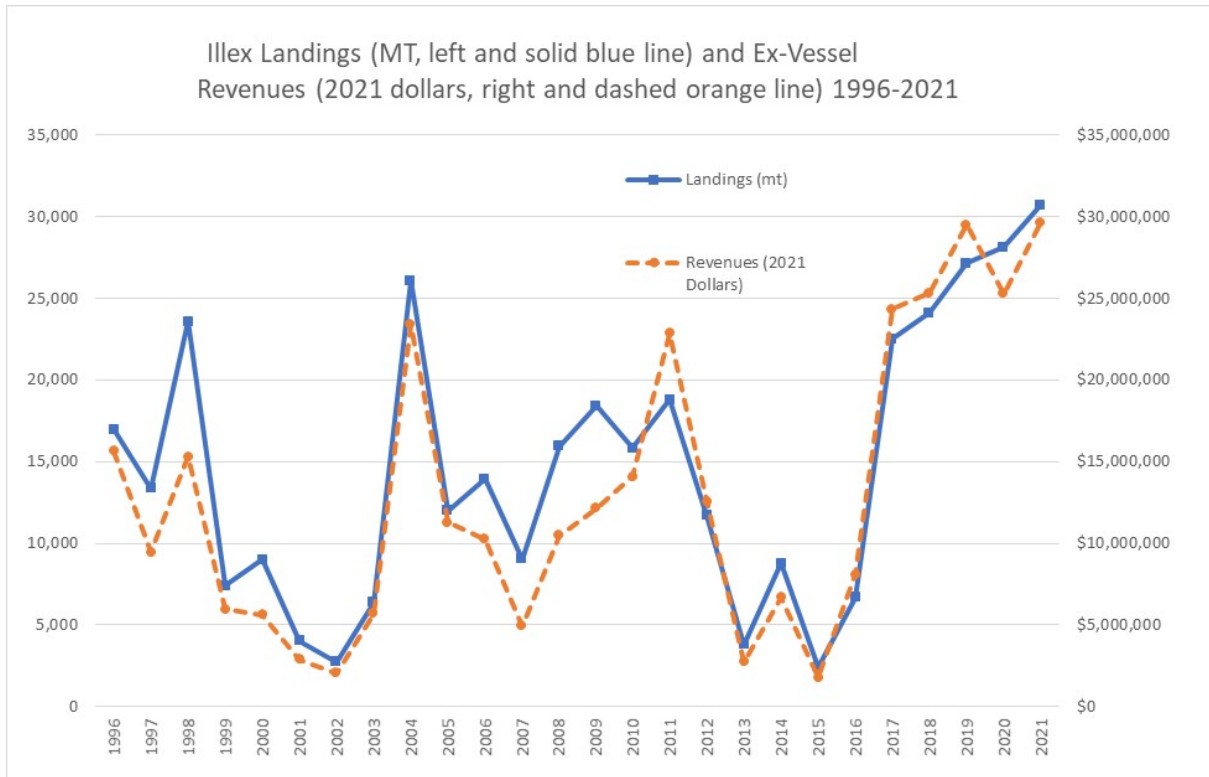


Figure 2. U.S. *Illex* Landings and Ex-Vessel Values 1996-2021. Source: NMFS unpublished dealer data.

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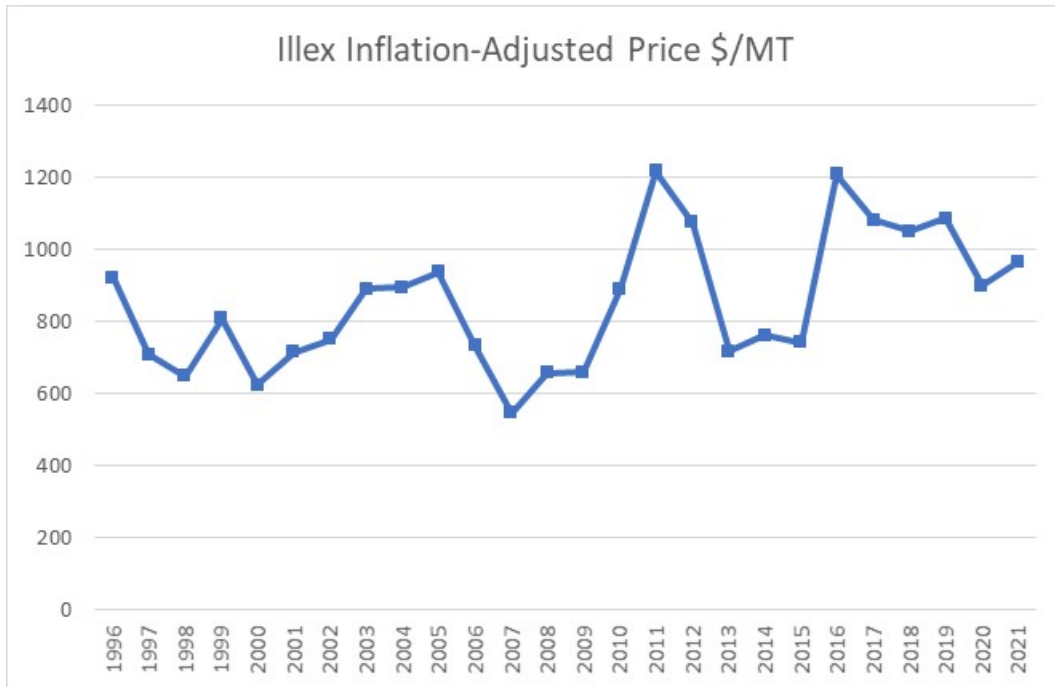


Figure 3. Ex-Vessel *Illex* Prices 1996-2021 Adjusted to 2021 Dollars Source: NMFS unpublished dealer data.

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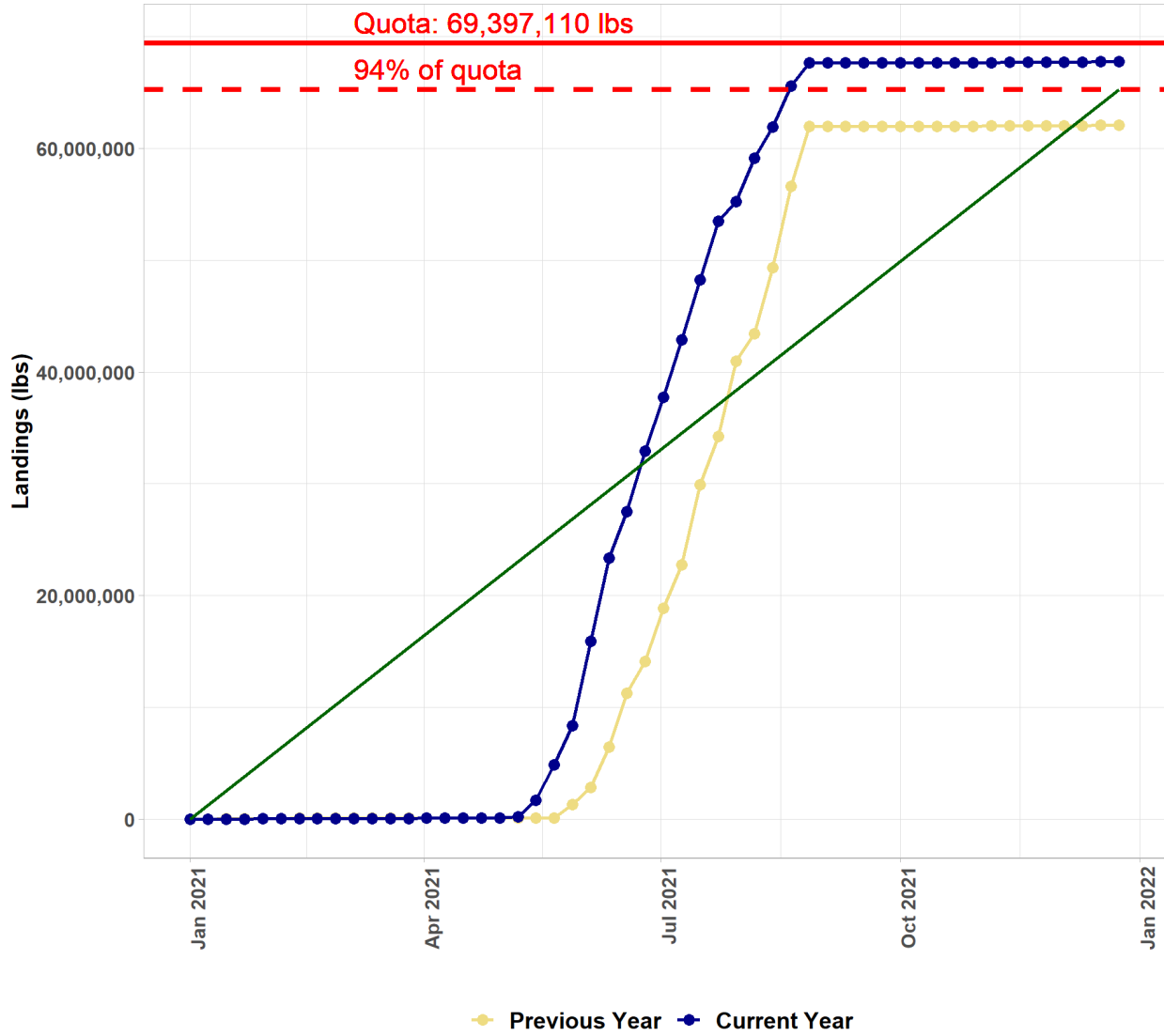


Figure 4. U.S. Preliminary *Illex* landings; 2021 in blue, 2020 in yellow-orange. Source: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/commercial-fishing/quota-monitoring-greater-atlantic-region>

Table 1. Commercial *Illex* landings (live weight) by state in 2021. Source: NMFS unpublished dealer data.

Most 2021 *Illex* landings occurred in RI, NJ, and MA (in that order), but further breakdown may violate data confidentiality rules (in spirit if not to the letter).

Table 2. Commercial *Illex* landings (live weight) by gear in 2021. Source: NMFS unpublished dealer data.

GEAR	Metric_Tons
Otter Trawl	29,383
Midwater Trawl	1,063
UNKNOWN	266
Other	3
Total	30,714

Table 3. Commercial *Illex* landings by statistical area in 2021. Source: NMFS unpublished VTR data.

NEMAREA	MT
622	17,988
526	3,714
537	2,852
616	1,710
626	1,504
623	920
632	543
636	269
621	193
627	134
Other	265
Total	30,091

Table 4. Vessel participation over time in the *Illex* Fishery based on annual landings (pounds)

YEAR	Vessels 500,000+	Vessels 100,000 - 500,000	Vessels 50,000 - 100,000	Vessels 10,000 - 50,000	Total
1982	7	7	0	10	24
1983	1	8	7	11	27
1984	4	15	4	6	29
1985	2	6	4	3	15
1986	8	6	4	3	21
1987	7	10	2	1	20
1988	3	3	1	2	9
1989	8	5	1	3	17
1990	12	3	0	1	16
1991	12	1	1	0	14
1992	16	1	0	1	18
1993	19	3	1	3	26
1994	21	7	5	8	41
1995	24	5	2	7	38
1996	24	5	6	4	39
1997	13	9	2	0	24
1998	25	4	1	3	33
1999	6	9	2	10	27
2000	7	7	0	2	16
2001	3	4	1	2	10
2002	2	3	1	1	7
2003	5	6	1	2	14
2004	23	5	2	0	30
2005	10	10	2	2	24
2006	9	8	1	2	20
2007	8	2	1	0	11
2008	12	5	0	0	17
2009	10	3	1	1	15
2010	13	5	0	4	22
2011	17	4	2	0	23
2012	8	3	2	2	15
2013	5	4	3	5	17
2014	5	3	2	2	12
2015	3	0	1	1	5
2016	4	3	3	2	12
2017	14	6	0	0	20
2018	19	7	0	5	31
2019	26	6	0	3	35
2020	25	4	2	1	32
2021	23	8	0	2	33

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