



The NOAA FISHERIES NAVIGATOR

Chub Joins the Club

Although Atlantic chub mackerel have been caught in Mid-Atlantic waters for many years, a targeted commercial chub mackerel fishery recently developed in the Mid-Atlantic and Southern New England. From 2013-2015, chub mackerel landings rose dramatically, peaking at 5.25 million lb in 2013, as chub mackerel were targeted when *Illex* squid were less available to the fishery. This prompted the Mid-Atlantic Fishery Management Council (MAFMC) to address concerns about the potential role of chub mackerel and other species in the ecosystem as prey. As part of an effort to protect forage species, the MAFMC adopted temporary chub mackerel measures in 2017. The MAFMC replaced these temporary measures in 2019 by adopting long-term conservation and management measures and formally integrating chub mackerel into the Mackerel, Squid, and Butterfish Fishery Management Plan (FMP) as part of Amendment 21. Amendment 21 became effective on September 3, 2020, regulating chub mackerel catch from Maine through North Carolina. See below for description of the new measures associated with this action.

Permit and Reporting Requirements

Vessels and dealers must have a federal permit for any species managed under the Mackerel, Squid, and Butterfish FMP (longfin or *Illex* squid, Atlantic mackerel, or butterfish) to fish for or purchase Atlantic chub mackerel caught in the Management Unit (Figure 1). Operators of commercial vessels are also required to have an operator permit issued by the Greater Atlantic Regional Fisheries Office (GARFO).

Vessel operators must report Atlantic chub mackerel catch in their vessel trip reports. There are no new vessel monitoring system (VMS) requirements.

Transit Measure

If a vessel issued a federal commercial fishing permit from GARFO catches Atlantic chub mackerel outside of the Management Unit, it can transit

through to land its catch in a Mid-Atlantic or New England port as long as all gear is stowed and not available for immediate use.

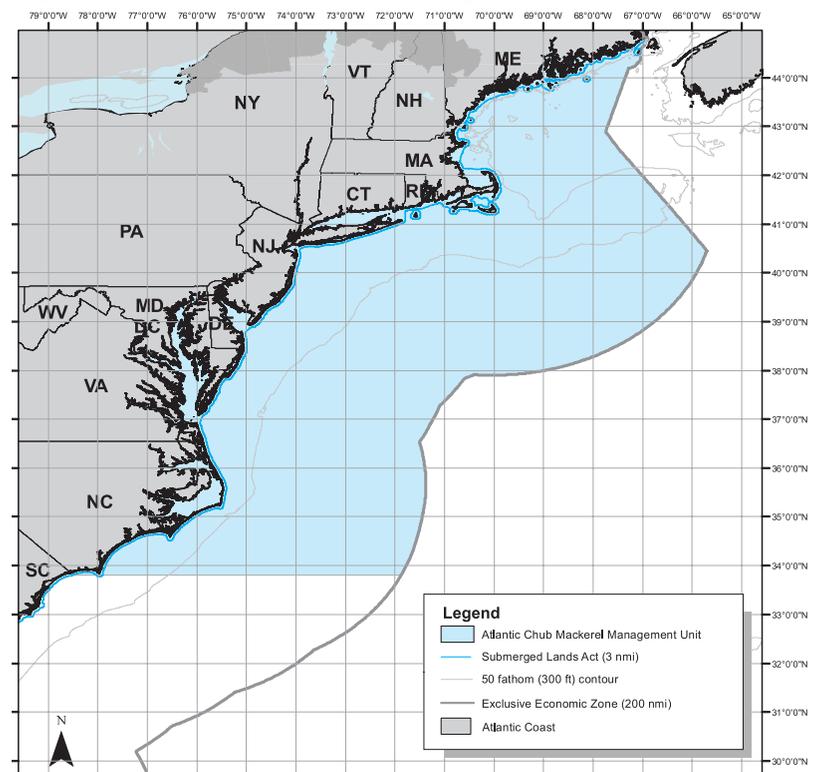
Exemption from Northeast Multispecies Mesh Requirements

Because Atlantic chub mackerel are caught using small-mesh bottom trawl nets, we had to implement new exemptions from existing groundfish regulations. A vessel may use small-mesh bottom trawl gear to catch Atlantic chub mackerel in the Southern New England and Mid-Atlantic Exemption Areas, but must comply with the following measures when fishing in these areas:

- Existing Mackerel, Squid, and Butterfish FMP gear restrictions and possession limits.
- Allowable possession limits for alewife, American shad, Atlantic croaker, Atlantic herring, black sea bass, blowfish, blueback herring, bluefish, conger eels, cunner, dogfish (trawl only), fourspot flounder, hickory shad, John Dory, longhorn sculpin, mullet, ocean pout, offshore hake, red hake, scup, sea raven, sea robins, shrimp, silver hake, spot, summer flounder, swordfish, tautog (blackfish), tilefish, and weakfish.
- Possession of monkfish and monkfish parts up to 10 percent, by weight of all other species on board up to 50 lb of tail-weight or 146 lb of whole weight per trip, whichever is less.
- Possession of American lobster up to 10 percent, by weight, of all other species on board

See *CHUB MACKEREL*, next page

Figure 1. Atlantic Chub Mackerel Management Unit



It's time to renew your dealer permits!

If you haven't already, you will soon receive your 2021 Dealer Permit Renewal Application in the mail. You will receive a package that includes the renewal application. We begin processing applications in mid-November.

To avoid delays for these tips:

- Read the application cover sheet carefully for information on how to complete and submit your application, as well as helpful telephone numbers and web links.

- Make sure you have submitted all of your required Federal dealer reports. We cannot issue your 2021 Dealer Permit until you are in compliance with all of your reporting requirements. This includes reporting all purchases from fishing vessels, negative reports if none are made during a week, and completion of the 2019 annual Processed Products report.

You can review your reporting history for the past year in your ACCSP SAFIS account.

If you think you are missing reports and need assistance, contact:

Tuna Reports: Highly Migratory Species eDealer customer service, 301-427-8590

Processed Products Reports: Pam Thames, Analysis and Program Support Division, 207-780-3322 or Pam.Thames@noaa.gov

All other reports: Analysis and Program Support Division's Reporting Office, 978-281-9246

If you need help submitting reports, contact us at 978-281-9212. You can also contact your local Port Agent. Additional information can be found on our website at www.fisheries.noaa.gov or search for GARFO dealer permits online.

Final 2020 and Projected 2021-2022 Atlantic Chub Mackerel Specifications

Specification	Application	Metric Tons	Pounds
Overfishing Limit	ME-FL (east coast)	3,026	6,671,188
Acceptable Biological Catch, Optimum Yield, and Maximum Sustainable Yield		2,300	5,070,632
Annual Catch Limit (ACL)	ME-NC	2,261.7	4,986,132
Annual Catch Target (ACT)		2,171.2	4,786,687
Total Allowable Landing (TAL)		2,040.9	4,499,486

There is no separation of catch limits between the commercial and recreational fisheries. Specifications can be set up for 3 years at a time and will be reviewed annually.

THIS SUPPLEMENT PROVIDED BY NOAA FISHERIES SERVICE'S GREATER ATLANTIC REGIONAL OFFICE

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Chub mackerel

Continued from previous page
or 200 lobsters, whichever is less.

- Possession of skate and skate parts (except for prohibited skate species) up to 10 percent, by weight, of all other species on board.

Identification Guide

Atlantic chub mackerel look a lot like other mackerel and tuna species caught along the Atlantic coast. (See graphic at right).

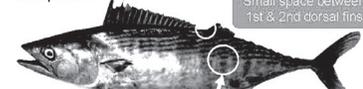
For more information on the new Atlantic chub mackerel measures visit: <https://www.mafmc.org/actions/chub-mackerel-amendment> or contact: Doug Christel (978)-281-6141, Douglas.Christel@noaa.gov

Possession Limits and Accountability Measures

Possession Limit	Metric Tons	Pounds
Initial	Unlimited	
When 90 percent of the TAL is landed	18.1	40,000
When 100 percent of the TAL is landed	4.5	10,000

If the ACL is exceeded, we will reduce the ACT by the amount of the overage as soon as possible in a future fishing year. You can view landings on our quota monitoring page (https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/SMB/CURRENT_REPORTS/smb_front_page.html).

Commonly Confused Mackerel & Tuna Species

<p>Atlantic mackerel, <i>Scomber scombrus</i></p> <ul style="list-style-type: none"> • Other common names: tinker mackerel, Boston mackerel, common mackerel • Up to 2 feet <p>Usually has a broken faint to dark stripe along sides below wavy bars on upper body</p>  <p>VTR CODE: MACK</p> <p>No spots on lower sides</p>	<p>Chub mackerel, <i>Scomber colias</i></p> <ul style="list-style-type: none"> • Other common names: tinker mackerel, hardhead, bullseye • Up to 22 inches <p>Stripes on upper body less defined than in Atlantic mackerel</p>  <p>VTR CODE: MACC</p> <p>Dusky spots on lower sides</p>
<p>Frigate mackerel/tuna, <i>Auxis thazard</i></p> <ul style="list-style-type: none"> • Up to 2 feet <p>Height of the scaled area under the second dorsal fin is 1-5 scales</p>  <p>Pectoral fins extend past beginning of scaleless, striped area on upper body</p> <p>VTR CODE: MACF</p>	<p>Bullet mackerel/tuna, <i>Auxis rochei</i></p> <ul style="list-style-type: none"> • Up to 20 inches <p>Height of the scaled area under the second dorsal fin is 10-15 scales</p>  <p>Pectoral fins do not reach past the scaleless, striped area on upper body</p> <p>VTR CODE: MACB</p>
<p>Atlantic bonito, <i>Sarda sarda</i></p> <ul style="list-style-type: none"> • Up to 3.2 feet • Body covered in scales; larger scales below striped area • Sharp teeth <p>Small space between 1st & 2nd dorsal fins</p>  <p>Straight, oblique stripes on upper body sometimes underlain with lighter vertical bars</p> <p>VTR CODE: BON</p>	<p>Little tunny, <i>Euthynnus alletteratus</i></p> <ul style="list-style-type: none"> • Other common names: false albacore, vaquita, bonito • Up to 3.5 feet • No sharp teeth <p>Dorsal fins connected (not clearly visible in picture)</p>  <p>Spots on sides near pectoral fins</p> <p>VTR CODE: LTA</p>
<p>Skipjack tuna, <i>Katsuwonus pelamis</i></p> <ul style="list-style-type: none"> • Up to 3.8 feet • No scales on upper striped area <p>Small space between 1st & 2nd dorsal fins</p>  <p>4-6 horizontal stripes on lower sides, may be broken or solid</p> <p>VTR CODE: SKJ</p>	<p>For more information, contact: NOAA Fisheries Greater Atlantic Region Sustainable Fisheries Division 55 Great Republic Drive Gloucester, MA 01930 978-281-9300 www.fisheries.noaa.gov/NEMA</p> <p>Mid-Atlantic Fishery Management Council 800 North State Street, Suite 201 Dover, DE 19901 302-674-2331 www.mafmc.org</p> <p>NOAA FISHERIES</p> <p>MID-ATLANTIC FISHERY MANAGEMENT COUNCIL</p> <p>Photos: Atl. mackerel: Hans Hillewaert. Chub mackerel: Alessandro Duci. Bullet mackerel: Jack Randall. Frigate mackerel: Robertson & Van Tassel. Bonito: MBL/Flesher Collection. Little tunny: J. T. Williams. Skipjack: R. Freitas.</p>

Making the Switch to Electronic Vessel Reporting

Earlier this year, the Mid-Atlantic and New England Fishery Management Councils (Councils) submitted an omnibus action to NOAA Fisheries requesting that we modify our fishing vessel reporting by requiring commercial fishermen to submit vessel trip reports (VTR) electronically for all federally managed species in our region. For-hire fishermen already have this requirement. Although the proposed action has not yet been approved, to help educate fishermen on the technologies available to report electronically, we are working closely with the Councils and the Atlantic Coastal Cooperative Statistics Program to develop a series of outreach opportunities and materials to assist fishermen with this transition from a paper VTR to an electronic VTR submission. We started our outreach in the southern New England area due to its large and diverse fishing fleet, and using lessons learned from this effort, will expand to other areas in the coming months.

To begin, we contacted vessel operators, fleet managers, sector managers, seafood harvesters, and commercial fishing industry groups to find out if they are interested in learning how to submit their vessel trips reports electronically. If they were already reporting electronically, we

wanted to know how it's working for them. One fisherman noted that our FishOnline reporting app is "easy to use and one less thing to think about since you don't have to mail it in. And you don't need to request more logs."

For those interested in learning more about eVTRs or our FishOnline website, we conducted remote training for individuals and groups via virtual meetings. We set up video conferencing and walked through the electronic reporting process, from downloading a reporting app from the Apple App Store or Google Play Store to logging in and going step-by-step through reporting and submitting a fishing trip. We also helped fishermen decide which reporting app to use, log on to FishOnline, and answer any other questions.

Soon we will switch from using permit numbers to using a username and password to access our Fish Online site. We are working with industry members to prepare for this upcoming change and to demonstrate new functions such as renewing permits, viewing dealer landings data, and managing multiple vessels within a single account. If you need assistance logging on to your FishOnline account, contact our Help Desk at 978-281-9188.

If you would like to request training or other support with electronic reporting, contact your nearest Port Agent:

Northern Massachusetts, New Hampshire, and Maine
Pam Thames, 207-780-332 or Pam.Thames@noaa.gov

Boston and Southeastern Massachusetts
Bill Duffy, 508-717-0210 or William.Duffy@noaa.gov

Rhode Island and Connecticut
Walter Anoushian, 401-783-7797
or Walter.Anoushian@noaa.gov

New York
Victor Vecchio, 631-324-3569
or Victor.Vecchio@noaa.gov

Northern New Jersey and Pennsylvania
Joanne Pellegrino, 978-609-7980
or Joanne.Pellegrino@noaa.gov

Southern New Jersey, Delaware, and Maryland
Josh O'Connor, 609-646-7543
or Joshua.O'Connor@noaa.gov

Virginia and North Carolina
Steve Ellis, 757-723-3369 or Steven.Ellis@noaa.gov

Collaborative Research Addresses Data Needs for the American Lobster and Jonah Crab Fisheries in the Northeast

Since 2013, the Lobster and Jonah Crab Research Fleet, organized by the Commercial Fisheries Research Foundation (CFRF), has collected biological data from nearly 160,000 American lobsters and about 90,000 Jonah crabs in waters of the Gulf of Maine and south to the Mid-Atlantic. Sensors on the fleet's gear record bottom-water temperatures.

This forward-looking project integrates biological and environmental data collection into standard fishing vessel operations, advancing working partnerships between scientists, managers, and members of the lobster and Jonah crab industry. In recent years, changing environmental conditions have affected both species. Once more of a bycatch in the lobster fishery, Jonah crab also now supports a developing fishery that can help supplement lobster catches.

"Thanks to the hard work of participating fishermen and CFRF staff, the Lobster and Jonah Crab Research Fleet has become one of the most important and reliable datasets for offshore biological and environmental data for lobster and Jonah crab management," says Dave Bethoney, CFRF Executive Director.

In September, the Northeast Fisheries Science Center's Cooperative Research Branch provided funding to the Atlantic States Marine Fisheries Commission to support the Research Fleet's work.

"I am thrilled that NEFSC/CRB was able to work with ASMFC to provide support for the Lobster and

Jonah Crab Research Fleet," says Anna Mercer, NEFSC Cooperative Research Branch Chief. "The project exemplifies the value of working with fishermen to address science needs and has tangible impacts on the stock assessments and management of these valuable species. I look forward to following along as this research continues and expands."

Upcoming work will involve more than 20 fishing vessels sampling lobster, Jonah crab, and bottom-water temperature from data poor regions in the Gulf of Maine, Georges Bank, and Southern New England. Tablets pre-programmed with the custom "On Deck Data" and "Ocean Temps" applications will be used to record and relay biological and bottom-water temperature data to a central database at CFRF.

Resulting data will be shared with participating fishermen, stock assessment scientists, fishery managers, and regional ocean modelers to inform stock assessments and management plans for the American lobster and Jonah crab fisheries.

"The ASMFC is grateful to our Congressional partners for their long-standing support of the American lobster fishery and more recently, the Jonah crab fishery," said Robert Beal, Executive Director of ASMFC. "American Lobster Addendum XXVI and Jonah Crab Addendum III underscored



Jonah Crab.
Credit: Vince Guida/NOAA Fisheries

the importance of CFRF's research fleet and noted it will be critical in addressing deficiencies in current biological data for both species. The American Lobster Technical Committee recently completed the benchmark stock assessment for American lobster; the continued operation of the CFRF research fleet made possible by this funding was invaluable to characterizing

the offshore fishery as input in the stock assessment."

The American lobster fishery is the most valuable fishery in the nation. Fishermen, scientists, and managers have highlighted that biological and environmental data from more areas and for more of the year are key to improving science and management for American lobster.

While once considered bycatch in the lobster fishery, the Jonah crab fishery has experienced a recent growth in landings. There is now an urgent need to collect more biological and fishery data to support the development of a stock assessment for this species. The growth of this fishery provides an important opportunity for lobstermen to diversify their fishing portfolio and adapt in the face of declining Southern New England lobster populations.

For more information contact: Marina Cucuzza at Marina.cucuzza@noaa.gov

Bottom Longline Survey Update

In the August Issue of the NOAA Navigator, we featured planned work by the Northeast Fisheries Science Center's Cooperative Research Branch to conduct a study on evaluating the impact of soak time and hook availability on catch rates of several species for the Cooperative Gulf of Maine Bottom Longline Survey. However, travel restrictions, supply chain back-ups, time needed for sheltering in place ahead of the trips, and variability in local COVID positivity rates defeated this plan.

Instead, the group will test a new generation of software and hardware that will further automate data collection and processing during the survey. Researchers and crew will perform some initial tests at the dock and then each vessel will conduct day trips. During testing, staff will identify and address bugs, and document new protocols. The new data collection system is a step forward in how we collect fisheries survey data that ultimately support our nation's fisheries.

For more information contact: Giovanni Giancesin at Giovanni.Giancesin@Noaa.gov

World Fish Migration Day

Please join NOAA Fisheries on October 22 as we participate in the World Fish Migration Day "Rivers Full of Fish" celebration. This two-part webinar series will feature leaders from North America and beyond, who will highlight the past, present, and future of river restoration. This virtual event was cultivated from the North American World Fish Migration day-long symposium. Inspired by the global effort to keep World Fish Migration Day in sight, we developed an engaging webinar series offering multimedia presentations, including a journey by video through the Town Brook river restoration projects in Plymouth, MA and under water featuring these amazing anadromous fish!

The webinars will promote the enriching impact restoration has on people and ecosystems. The first webinar will highlight the science and technology behind river restoration featuring speakers like George Pess on the ecological impact of the Elwha Dam removal in Washington state. The second webinar is one of celebration, focusing on the amazing progress our collective efforts across disciplines to restore rivers, advance approach, and ensure the health of our rivers and fisheries. We hope you join us for the series and look forward to celebrating with you!



On World Fish Migration Day, thousands of organizations, schools, and communities organize events to educate and excite people about migratory fish species in their regions and our collective reliance on healthy free-flowing rivers. These events help reach students, teachers, resource managers, commercial and recreational anglers, as well as those who influence public policy that affect rivers.

The two webinars will take place at 1:00 pm and 5:00 pm EST. More information about how to register for the webinars can be found at www.worldfishmigrationday.com



NOAA Fisheries' Role in the Battle Against IUU

NOAA Office of Law Enforcement (OLE) Agents, Officers, and partners in the nation's seaports and beyond work hard to detect, investigate and deter Illegal Unreported and Unregulated (IUU) fishing on a daily basis. They protect vulnerable marine species in order to ensure sustainable global resources. They defend U.S. economic and public health interest from illegal fishing activities. They help prevent those who engage in illegal fishing from profiting in U.S. markets.

Unnamed Prison, Dar es Salaam, United Republic of Tanzania, 2009

Special Agent (SA) Jeff Ray and I waited in a small room of a maritime detention facility. Our purpose was to interview crew members of the fishing vessel, *Tawariq1*. The *Tawariq1* was detected fishing illegally in the Tanzanian EEZ during a joint, multi-national patrol by the South African Patrol Vessel Sarah Baartman. Officers from the Sarah Baartman initially boarded the *Tawariq1* because of her questionable flag state, name, and ownership. The captain destroyed evidence when boarded. The ship was detained and all were jailed indefinitely, pending charges. The International Monitoring, Control and Surveillance (IMCS) network requested NOAA OLE the assistance of NOAA OLE in this investigation.

SA Ray and I spent more than a week supporting the investigation and the local prosecutor. By the time we arrived, the captain and crew had been in prison for weeks and it showed. We reviewed positional data, communication logs, catch logs, and crew information. The two crew members we interviewed were tired and hungry. One was from Kenya and the other, the Philippines. They told similar stories; both were hired through a staffing agency in Singapore with the promise of pay wired to their families while at sea. Neither of them knew when or if they had been paid since the arrest. Unfortunately they knew little about the vessel's position or its illegal fishing. They did their job and hoped to make money. Local authorities eventually released the captain and crew after months in detention. We presented our findings to the case prosecutor. The case concluded with a guilty verdict and a substantial fine imposed on the

beneficial owner. Ultimately, the vessel sank at the dock due to neglect.

This is what an IUU fishing investigation looks like in person. Illegal fishing destroys the global resource, subjects the crew to treacherous working conditions, and ultimately prison if caught. If the *Tawariq1* had not been detected illegally fishing, the catch would likely be transferred at sea, containerized, and shipped. Documents can be fabricated as necessary and a business a world away can sell that catch within two weeks.

An old supervisor of mine used to describe the complexities of illegal fishing investigations rather simply: "It's like trying to solve a bank robbery in the middle of the ocean, at night, in the dark, with no witnesses."

Progress

The fight against IUU over the last decade has evolved:

In 2014, the White House created the U.S. Government Task Force on Combating IUU Fishing and Seafood Fraud.

In 2015, The Task Force produced a 15 point action plan including establishing a risk-based traceability program to track seafood from harvest to entry into U.S. commerce.

In 2016, the Port State Measures Agreement (PSMA) was enacted, with the objective to deter IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches.

In 2018, the Seafood Import Monitoring Program (SIMP) was activated, identifying 13 species susceptible to IUU fishing and/or seafood fraud.

Today, Enforcement Officer (EO) Sam Adams and SA Dustin Parker form a team assigned to the Port of New York/New Jersey area. In addition to their domestic fisheries investigations, they are also charged with detecting and investigating illegal seafood imports. The task is daunting. Last year alone, seafood imports through the port of NY/NJ exceeded 4.6 billion dollars, but the team utilizes a multifaceted approach to expand their reach.

An important part of their approach is a Seafood Fraud Working Group the team maintains in the port. Enforcement personnel in the group come from multiple partner agencies: U.S. Customs and Border Protection (CBP), Food and Drug Administration, U.S. Fish and Wildlife Service, Homeland Security Investigations, The Department of Agriculture, and The Department of Justice. The group meets regularly to discuss import trends, available intelligence, and ongoing investigations/prosecutions. Enforcement teams in other major U.S. ports maintain similar groups, such as the Boston Seafood Fraud working group.

EO Adams and SA Parker are pioneers of sorts, two of the many new EOs and SAs hired in NOAA OLE to specifically work in seaports investigating seafood imports via air and sea freight. They partnered



SA Dustin Parker (left) and EO Sam Adams inspect a package. Credit: James Cassin

with the CBP to target, review, and investigate seafood imports. Since Adam's arrival in 2018 and Parker's in 2019, the team collectively reviewed and investigated hundreds of seafood imports for compliance. A myriad of trade analysts and document experts back up the team, many of whom reside in NOAA's Office of International Affairs and Seafood Inspection and CBP's Commercial Targeting and Analysis Center. EO Adams and SA Parker leverage that expertise to concentrate their investigations. In concert with the team, analysts target and hold "at risk" imports for investigation. In addition, analysts assist in supply chain document review and validation. Knowing where, when, and how the seafood was harvested is most important to its legality. If all goes well, a forty-foot shipping container packed with seafood can be investigated and cleared within hours or detained for further scrutiny.

Since its inception, EO Adams and SA Parker's team successfully documented information on many illegal imports. They uncovered shipments that contain inadequate or even falsified supply chain documentation. They discovered seafood mislabeled specifically for financial gain. They detected smuggled seafood from prohibited countries due to health standards. They detected illegal shellfish smuggled as clothing items such as blue jeans. The team also uncovered companies that developed methods to evade required reporting, avoiding the scrutiny of those charged with enforcing the law. The information the team developed led to the execution of multiple search warrants in furtherance of criminal investigations.

If the illegal catch of a vessel similar to *Tawariq1* does end up arriving at our ports, NOAA OLE and its partners will work hard to investigate and prosecute those knowingly involved. With any luck, they'll be able to shed light on that bank robbery that happened in the middle of the ocean, at night, in the dark, with no witnesses.

For more information on OLE efforts combating IUU fishing and investigative work in the Ports of NY and NJ, please contact James Cassin at james.cassin@noaa.gov.



NOAA OLE truck on the container ship dock. Credit: James Cassin