



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

MEMORANDUM

TO: American Lobster Management Board
FROM: Jonah Crab Plan Development Team
DATE: January 15, 2016
SUBJECT: Addressing Catch by Non-Lobster Trap Gear in Draft Addendum I

The Jonah Crab Plan Development Team (PDT) met via conference call on December 17, 2015 and January 15, 2016 to review draft Addendum I to the Jonah Crab FMP. While reviewing bycatch data for the Jonah crab fishery, it became apparent that there is Jonah crab bycatch from non-lobster trap gear such as fish pots, crab traps, and whelk pots. As draft Addendum I currently reads, incidental landings from these non-lobster trap gears are not addressed; the bycatch provision only applies to non-trap gear, such as otter trawls and gill nets.

Data provided by NOAA GARFO which was queried from the Vessel Trip Report (VTR) database showed that between May 1, 2013 and August 31, 2015 there were 194 trips which landed Jonah crabs from whelk pots, crab pots, and fish pots. Of this, 80 trips landed 100 crabs or fewer and 115 trips landed 200 crabs or fewer. Approximately 45 trips landed between 200 and 500 crabs and 40 trips landed more than 450 crabs. Trips with the highest landings came from whelk pots.

Landing reports from Maryland show that between 2012 and 2015, 33 trips landed Jonah crabs with fish pots. All of these trips were under 200 lbs. Reports also indicated that from 2014-2015, 36 trips landed Jonah crabs with whelk pots. Average landings per trip with whelk pots were under 500 lbs. The PDT notes that channeled whelks and Jonah crabs are not typically caught in the same area, so there is concern that landings from whelk pots may in fact be rock crabs.

As a result of these findings, the PDT recommends that a second issue be added to draft Addendum I prior to public comment. This addition would not remove the three current options that address non-trap incidental bycatch; rather, it would add a second issue with options that provide language to address bycatch from non-lobster trap gear. This issue would read:

Issue 2: Incidental Bycatch Limit for Non-Lobster Trap Gear

The following options would apply to all traps which do not have a valid lobster tag. These include fish pots, whelk pots, and crab pots.

Option A: Status Quo

Under this option, there would be no incidental bycatch limit for non-lobster trap gear. Those wishing to harvest Jonah crabs with traps that do not have a valid lobster tag would be required to obtain an incidental permit as stipulated in Section 5.1 of the Jonah Crab FMP. There would be no limit on the number of crabs caught by these fishermen.

Option B: Incidental Bycatch Limit of 200 Crabs per Day, 500 Crabs per Trip

This option would establish an incidental bycatch limit for all traps that do not have a valid lobster tag of 200 crabs per day, up to 500 crabs per trip, for trips three days or longer. For the purpose of this addendum, a day means a 24-hour period.

1 day fishing trip means a trip 24 hours or less

2 day fishing trip means a trip greater than 24 hours up to 48 hours

3+ day fishing trip means a trip greater than 48 hours

The addition of a bycatch limit for non-lobster trap gear would cap incidental landings while ensuring the inclusion of current participants in the Jonah crab fishery. Furthermore, a trip limit on non-lobster trap gear would prevent the proliferation of traps by fisheries that are not regulated in federal waters.



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

MEMORANDUM

January 15, 2016

To: American Lobster Management Board
From: Law Enforcement Committee
RE: Jonah Crab bycatch limits

The Law Enforcement Committee (LEC) of the Atlantic States Marine Fisheries Commission (ASMFC) met via conference call on January 7, 2016 to review and provide comments on proposed bycatch limits for Jonah crab harvest. The following members were in attendance: *LEC: Capt. Steve Anthony (NC); Deputy Chief Kurt Blanchard (RI); Deputy Chief Jon Cornish (ME); Deputy Director Chisolm Frampton (SC); Asst. Director Larry Furlong (PA); Special Agent-in-Charge Honora Gordon (USFWS); Capt. Jamie Green (VA); Asst. Chief Wayne Hettenbach (USDOJ); Capt. Rob Kersey (MD); Capt. Bob Lynn (GA); Capt. Doug Messeck (DE); Maj. Pat Moran (MA); Director Kyle Overturf (CT); Lt. Colby Schlaht (USCG); Lt. Jason Snellbaker (NJ); Capt. Rama Shuster (FL)*
LEC ALTERNATES: Jeff Ray (NOAA OLE); Tom Gadomski (NY)
OTHER ATTENDEES: Col. Jim Kelley (NC); Maj. Dean Nelson (NC); Chief Dean Hoxsie (RI); Todd Mathes (NCDEQ); Jason Rock (NCDEQ)
STAFF: Mark Robson; Mike Waine; Megan Ware

ASMFC is considering changes to the incidental bycatch limit for Jonah crabs in Draft Addendum I of the Jonah Crab Interstate Fishery Management Plan. Given that one of the options considers a higher bycatch limit (1000 crabs), the LEC was asked to review whether a count limit is still the most appropriate metric in terms of enforcement. The LEC considered the following 3 methods for setting a bycatch limit:

- A count limit (1,000 crabs).
- A poundage limit (1,000 pounds).
- A volumetric limit based on the number of crates.

The consensus of the LEC is that a bycatch limit based on the number of crabs (count) is preferable in this fishery. As there will be a minimum size-limit and a prohibition on the possession of egg-bearing females, officers will likely need to examine individual crabs when inspecting catches. Since handling crabs would be required anyway, checking bycatch limits based on the number of crabs would be more feasible and practical. Other comments suggested that bycatch limits based on volume, such as a set number of crates or bushels, would also be workable from an enforcement perspective. Regardless of the type of limit, as bycatch limits increase the time and effort required to check catches also increases significantly.

Based on experience with the fishery to date and its limited landings from non-trap gear, LEC members expressed concern that large bycatch allowances, particularly in non-trap gear, could result in directed efforts that may increase gear conflicts in the future.

The LEC appreciates the opportunity to review and comment on these bycatch limit options.



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

MEMORANDUM

TO: American Lobster Management Board
FROM: Jonah Crab Plan Review Team
DATE: January 15, 2016
SUBJECT: Claw Data from the Jonah Crab Fishery

Following the November Lobster Board meeting, states were asked to submit data on the size of their respective Jonah crab claw fisheries. Information of specific interest included: the number of Jonah crab claw fishermen, whether fishermen are landing whole crabs and selling claws or landing claws, the pounds of claws landed, whether fishing occurs in state or federal waters, and any common practices of Jonah crab claw fishermen.

The Jonah Crab Plan Review Team (PRT) met via conference call on January 7, 2016 to review data submitted by the states. The following information is being forwarded to the Board for their consideration. Information was also provided by Derek Perry (Massachusetts DMF) on the relationship between Jonah crab carapace width, claw height, and claw length, and by Craig Weedon (Maryland DNR) on the relationship between carapace width and claw length for both male and female Jonah crabs. These reports can be found on pages 5 and 7, respectively.

Maine

An investigation of Maine's landings program revealed the landing of Jonah crab claws by lobster fishermen. Since Maine only requires 10% harvester reporting, it is possible for harvesters to fish for Jonah crabs and not report. Furthermore, it is believed that fishermen harvest Jonah crab claws for personal use and, as a result, these landings are not recorded in dealer reports. Therefore, the Jonah crab claw landings shown in Table 1 likely underestimate the true size of the claw fishery. Landings from 2010-2012 as well as the number of fishermen landing Jonah crab claws are confidential and not presented below.

Table 1: Jonah crab claw landings, in pounds, and the associated total value from Maine.

Year	Total Pounds	Total Value
2013	5,048	\$2981.85
2014	7,965	\$5934

New York

The majority of fishermen in New York land whole crabs; however, some land whole crabs and then sell claws when they are unable to find buyers for the whole crabs. The values in Table 2 are total landings, in pounds, reported on VTRs for all NY fishermen who sold claws to dealers. This is an overestimate since 100% of the landings were not claws; however these values provide an upper bound for Jonah crab claw harvest. Landings are from both state and federal waters and there is a mix of fishermen harvesting one or two claws per crab. Fishermen did not indicate a size preference when harvesting claws, stating that Jonah crab claws go to processors.

Table 2: New York’s Jonah crab harvest from fishermen who were reported to have sold claws. This data provides an upper bound for yearly Jonah crab claw harvest since landings are a mix of whole crabs and claws.

Year	# Selling Claws	Max Landings (lbs)
2008	11	144,980
2009	6	150,843
2010	9	213,876
2011	15	227,709
2012	12	244,134
2013	19	293,376
2014	10	130,851

New Jersey

Based on Jonah crab landings, most (if not all) of the vessels holding lobster permits and actively landing American lobster are also landing Jonah crab. As shown in Table 3, this may be up to 18 permitted vessels. The exact number of Jonah crab fishermen is not known because it is possible for a harvester to fish for Jonah crabs and not report if the vessel does not have a federal permit and fishes in state waters. New Jersey obtains its data on Jonah crab landings from dealer reports uploaded to the ACCSP Data Warehouse. The dealer reports do not breakdown the poundage of Jonah crabs landed between claws and whole crabs. Therefore, it is not clear which Jonah crab fishermen are landing claws and what portion of their landings is parts. Furthermore, the dealer reports do not specify where the fishing activity took place; they just list the county in which the catch was landed. Therefore, it is not possible to know from dealer reports if fishing is occurring in state or federal waters. Data from at-sea lobster observers suggests that there are claw fishermen in federal waters who are taking both claws from Jonah crabs.

Table 3: Number of New Jersey vessels that landed Jonah Crab 2012-2015. Since dealer reports do not differentiate between whole crabs and claws, it is not possible to know how many of these fishermen are landing parts. Total number of vessels in 2015 landing Jonah crabs was not available.

Gear Type	2012		2013		2014		2015	
	# of Vessels	# w/ Lobster Permit	# of Vessels	# w/ Lobster Permit	# of Vessels	# w/ Lobster Permit	# of Vessels	# w/ Lobster Permit
Gill Nets	3	0	2	0	5	0		0
Otters Trawls	7	3	2	0	2	2		4
Pots and Traps	16	16	14	14	18	18		16

Delaware

A review of harvest records shows that there were 2 Jonah crab claw fishermen in 2014. These fishermen landed whole crabs and claws, depending on the market, and fished in federal waters. Their landings are confidential. In general, these fishermen harvested both claws and had a preference for crabs larger than 4”.

Maryland

Trip level harvester records show that there have been 18 Jonah crab claw fishermen between 2000 and 2015. More recently, the number of Jonah crab claw fishermen has been 7 (2014) and 8 (2015). Catch is typically landed as claws since not all boats have a seawater storage tank. In the last 10 years, total landings from Maryland have ranged from 1,684 lbs in 2005 to 30,665 lbs in 2014 (Table 4). Much of the individual trip level data is confidential; however, all trips landed less than 4,500 lbs. Between 2000 and 2015, roughly 50% of fishermen averaged less than 50 lbs per trip each year and roughly 80% of fishermen averaged less than 200 lbs per trip each year. 60% of fishermen landed less than 500 lbs yearly. Claw landings occur in both state and federal waters and typically both claws are harvested. At-sea observers reported that crabs under 6.5” are throw back.

Table 4: Trip level data on the Jonah crab claw fishery in Maryland. The table shows the number of fishermen landing claws, the total number of trips from these fishermen, total pounds landed, and the average poundage per trip for that year. Data is from all gear types.

Year	# of Fishermen	Trips	Pounds Landed	Pounds/Trip
2005	5	34	1,684	50
2006	4	54	2,336	43
2007	5	74	4,480	61
2008	5	79	7,878	100
2009	7	52	7,942	153
2010	4	43	5,545	129
2011	3	19	4,175	220
2012	9	53	7,507	142
2013	Confidential			
2014	7	54	30,665	568
2015	8	70	21,232	303

Fishermen in Maryland land Jonah crab claws using a variety of gears in addition to lobster traps. These include fish pots, gillnets, whelk pots, and otter trawls. Table 5 summarizes the total landings from these gear types between 2000 and 2015.

Table 5: Jonah crab claw landings in Maryland, broken down by gear type (2000-2015).

	Lobster Trap	Fish Pot	Gillnet	Whelk Pot	Otter trawl
Total Pounds (2000-2015)	110,894	6,212	35,554	15,410	650

Given the large size of Jonah crabs retained (6.5”), the prevalence of fishing in state waters, and the fact that channeled whelks and Jonah crabs are not typically found together, the Jonah Crab Plan Review Team expressed concern that some Maryland trip reports may be misidentifying rock crabs as Jonah crabs.

Jonah Crab Reporting Requirements

States were also asked to provide information their respective reporting requirements for Jonah crab. Table 7 summarizes the information submitted.

Table 7: Jonah crab reporting requirements by jurisdiction.

	NMFS	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA
Trip level harvester data collected includes gear used and effort (e.g. traps hauled and traps in water)	Yes for most federal permit holders. No for federal lobster-only permit holders and Jonah crab-only harvesters with no other federal permits	Yes (10%)	No	Yes	Yes	Yes	Yes	Yes, through VTR's and as long as the vessel has a federal permit.	No		Yes
Is it lawful for any harvesters to fish and land Jonah crabs and NOT report?	No for most federal permit holders. Yes for federal lobster-only permit holders and Jonah crab-only harvesters with no other federal permits	Yes	No	No	No	No	No	Yes, only if the vessel does not have a federal permit and is fishing state waters.	No		No
Trip-level harvester data delineates whole crab vs. claw only	No	No	No	No	No	No	No	No	No		Yes (though not always done in the past)
Trip-level dealer data is collected that would capture Jonah crab transactions	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes, through SAFIS for vessels with federal permit.	No		Only for federal water harvest that is sold to a federal dealer and can be tied back to a VTR
Requires trip-level dealer data that would delineate transactions of whole crab vs. claws	No	Yes	No	Yes	Yes	Yes	Yes	No	No		No

The following data was provided by Derek Perry, Massachusetts DMF, for Board consideration in regards to the Jonah crab claw provision.

As part of a Saltonstall-Kennedy Grant awarded in 2015 to collect biological data on the Jonah crab fishery, the carapace width, claw height, and claw length of several hundred Jonah crabs were measured. From this data, the relationships between carapace width and claw height as well as carapace width and claw length were examined. Figure 1 shows the relationship between carapace width and claw height for the Gulf of Maine/Georges Bank (GOM/GB) and Southern New England (SNE). Measurements from regenerated claws were removed using a least square method and only data from male Jonah crabs is included. In GOM/GB, the regression analysis suggests that a crab meeting the minimum size of 4.75" (120.65 mm) would have an expected claw height of 1.31" (33.4 mm). In SNE, a crab meeting minimal legal size would be expected to have a slightly larger claw height of 1.39" (35.2 mm). The resulting R^2 values for GOM/GB and SNE were both fairly high at $R^2=0.9457$ and $R^2=0.8792$, respectively.

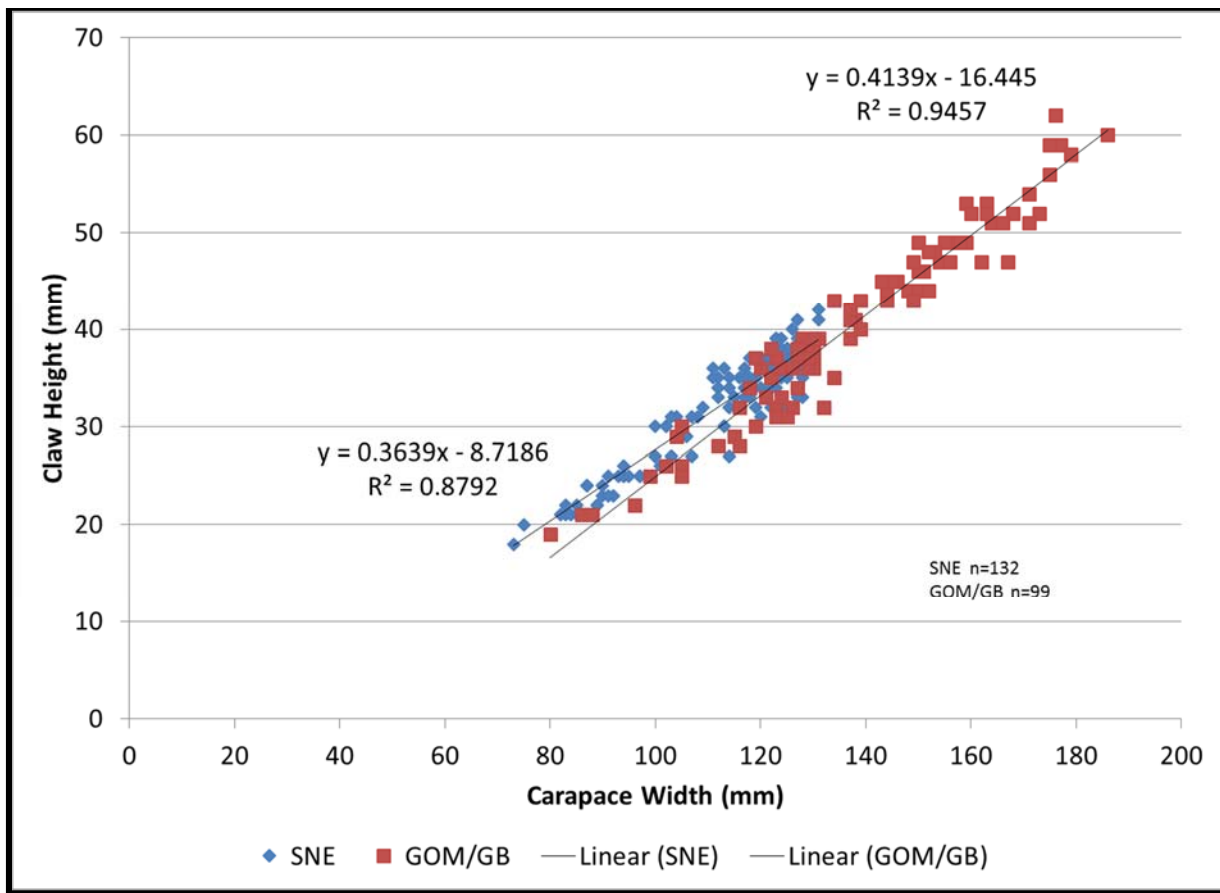


Figure 1: Linear regression between the carapace width and claw height of Jonah crabs (n=99 for GOM/GB and n=132 for SNE). For a male crab with a 4.75" (120.65 mm) carapace width, the linear regression expects a claw height of 1.31" (33.4 mm) for crabs in GOM/GB and 1.39" (35.2 mm) for crabs in SNE.

Figure 2 shows the relationship between carapace width and claw length for GOM/GB and SNE. Again, only data from male Jonah crabs is included and regenerated claws were removed using a least square method. The data suggests that, for a male crab whose carapace width meets the minimum size of 4.75" (120.65 mm), an expected claw length in GOM/GB would be 2.42" (61.5 mm) while an expected claw length in SNE would be 2.46" (62.5 mm). The resulting R² values for GOM/GB and SNE were both fairly high at R²=0.9648 and R²=0.9084, respectively.

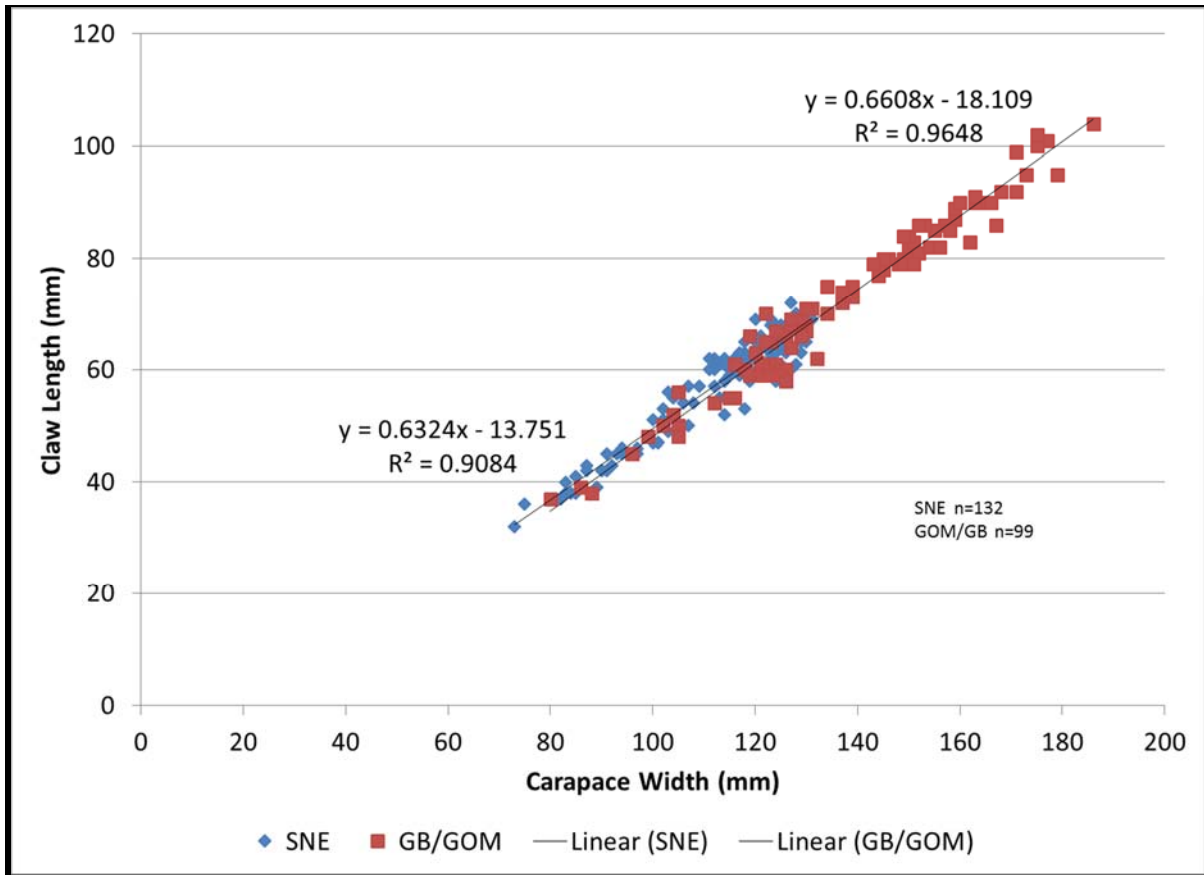


Figure 2: Linear regression between the carapace width and claw length of Jonah crabs (n=99 for GOM/GB and n=132 for SNE). For a male crab with a 4.75" (120.65 mm) carapace width, the linear regression expects a claw length of 2.42" (61.5 mm) in GOM/GB and 2.46" in SNE (62.5 mm).

The following data was provided by Craig Weedon, Maryland DNR, for Board consideration in regards to the Jonah crab claw provision.

As part of Maryland’s sea sampling program, the carapace width and claw length of 40 Jonah crabs were measured. Of the 40 crabs, 20 were female and 20 were male. Claw lengths were measured from the tip of the bottom of the claw to the elbow. Figure 3 shows the relationship between carapace width and claw length for the Jonah crabs measured. The claws of female Jonah crabs are noticeably smaller than those from male crabs. The data suggests that a claw length of 2.75” would protect both males and female crabs at the minimum legal size of 4.75”.

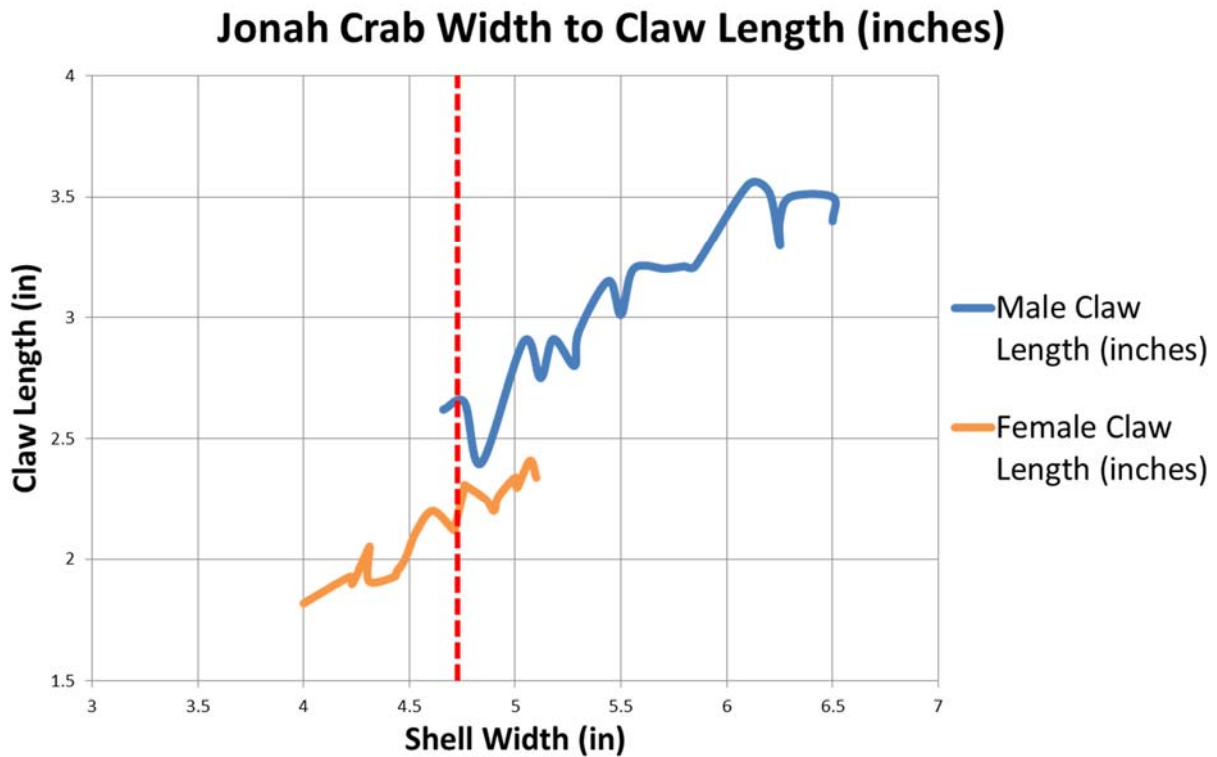


Figure 3: Relationship between Jonah crab carapace width and claw length from Maryland sea sampling (n=40). The red dotted line is the minimum size for harvest (4.75”).