

**Mid-Atlantic Fishery Management Council (MAFMC; Council)**  
**Surfclam and Ocean Quahog Fishery Performance Report (FPR)**  
**May 2016**

The Council's Surfclam and Ocean Quahog Advisory Panel met on May 2, 2016 via webinar and in-person at the Council office to review 2016 data updates to the surfclam and ocean quahog fishery information documents and revise the fishery performance report based on advisor perspectives on these fisheries.

*Council Advisors:* Thomas Alspach, Thomas Dameron, Peter Himckak, Samuel Martin, Joseph Myers, David Wallace.

*Public:* Thomas Hoff, Michael LaVecchia, Peter Hughes, Purcie Bennet-Nickerson.

*Staff and Scientific and Statistical Committee:* John Boreman (SSC), Mark Holliday (SSC), Thomas Miller (SSC), Doug Lipton (SSC), Jessica Coakley (Staff), José Montañez (Staff), Doug Potts (GARFO Staff).

**Surfclam and Ocean Quahog**

**Critical Issues**

- The most critical current challenge to the surfclam and ocean quahog fishery is the New England Council's Omnibus Habitat Amendment which has the potential to ban bottom tending mobile gear (including clam dredges) from high energy sand environments where the surfclam and ocean quahogs fishery is the only fishery being prosecuted. This action has the potential impact on the spatial distribution of the fishery, which will result in biological impacts as well as social and economic impacts. It also impacts the Mid-Atlantic Council's ability to manage its jurisdictional fishery for surfclam and ocean quahogs. The industry needs the support of the Council and NMFS in addressing these concerns. As an update to the above, the industry has been engaged in an industry funded effort to examine additional databases (NMFS clam survey data) to examine spatially where industry fishing activity with hydraulic clam gear could occur. The intent is to use this information to identify discrete areas within proposed closures where clam fishing could occur without impacting groundfish habitat.

**Market Issues**

- For surfclams and ocean quahogs, there are occasional landings in Ocean City, MD. It used to be significant but is no longer. Cape May and Wildwood, NJ are no longer significant. Most of the fleet is fishing out of Pt. Pleasant and Atlantic City, NJ, Oceanview, NY, Hyannis, MA (surfclams only), and New Bedford, MA. Vessels have been moving North and shifting effort. For more details, see the Surfclam and Quahog Information Documents.

- For Maine quahogs, the quahogs have increased to sizes larger than the preferred small size for the market, which explains the decline in the catch rates and prices for Maine quahogs. There is a

suggestion that there is another bed of small clams that has been found, but that is not reflected in the catch.

- A major reason clam plants have been closed over the last 20 years has been wastewater. Two plants recently had permits coming due and closed because of the wastewater requirement and capital investments needed to meet permit limits.

- Another reason for recent consolidation has been the cost of fuel prices and the distance needed to travel to harvest clams - which cascades through the vessel, processors, ports, etc., and has put greater economy on scale and location. Vessel discharge permits will be additional costs, and will affect both vessels and docks. Vessels that have ballast tanks are required to have a vessel discard permit for those vessels greater than 79 ft. Fuel prices have declined giving some relief to industry participants. Commercial Fishing vessels have also been given a 3 year exemption to the Vessel Discharge Permit regulations.

- The cost of complying regulatory function has increased. Prior to 1990, there were already great regulatory costs (e.g., Clean Water Act, Clean Air Act, and other fisheries related regulations). Since the individual transferrable quota (ITQ) went into place to the present, the regulatory function has increased substantially (e.g., coast guard, habitat requirements, bycatch species (marine mammals), etc.) and the cost of staying up to date and following the regulatory requirements (complexity and number) is expanding. The Cost Recovery Amendment is going through rulemaking, and will include recovery of incremental costs for management of the ITQ fisheries. Cost associated with the onboard paralytic shellfish poisoning (PSP) protocol for vessels fishing on Georges Bank includes testing costs, training of personnel, and further testing when clams are brought to shore.

- Vessels built after July 2013 will need to be "classed", and then subsequently kept in that class by inspections, which created significant cost considerations. U.S.C.G. regulations written, under review and soon to go into effect will require training, or demonstration of knowledge and competency, for all individuals in charge of commercial clam vessels operating in federal waters. Current regulations require new commercial fishing vessels, built after July 1, 2013, that are 79 feet or greater in length to be assigned a load line. Regulations require new commercial fishing vessels, built after July 1, 2013, that are at least 79 feet overall in length and will operate in federal waters to meet survey and classification requirements. Commercial fishing vessels built to class requirements before July 1, 2013 must remain in class. Certain commercial fishing vessels that undergo a major conversion will be required to comply with an "alternate safety compliance program" yet to be developed for both load line and construction standards requirements.

- The push to comply with global food safety requirements/initiatives and sustainability certification lead to additional costs. The global food safety ratings are being required by buyers, and if not satisfied could lead to buyers choosing not to use specific suppliers. The Marine Fisheries Advisory Committee (MAFAC) has recommended that NOAA Fisheries use their inspection service to develop sustainability certifications for US seafood similar to the Marine Stewardship Council (MSC) and other independent groups. The surfclam and ocean quahog fisheries are presently under review for MSC certification for Federal surfclam and non-Maine

ocean quahogs; the final report should be available soon with possible certification by the end of the summer.

- The seafood imported into the US needs to be compliant with hazard analysis and critical control points (HACCP) but may not have to meet the third party audits, which makes the domestic seafood more expensive. During a recertification process, it becomes more stringent than the initial certification ("keep raising the bar"); the facility could be found not compliant.

- Increasing foreign imports and foreign competition puts a constraint on price, and the price cannot be increased to absorb all the additional costs and still be competitive in the market place. The limit in demand for clams in the market is driven by many market factors including foreign seafood competition, other products in the marketplace (chicken, etc.), shifting toward healthier market products (e.g., clam sushi, etc. versus a fried or cream based product), and competition with other ingredients, as clams typically are not a center of the plate product. The overall retail market has been steady to a slight decline.

- If just comparing landed value of surfclams and ocean quahogs to landed value of other fish seafood products, you would tend to underestimate the total economic value of that fishery. There is limited information on the multipliers for this industry. There is a large multiplier from the shucking plant to further processing. A study is being conducted to examine these factors in more detail.

### ***Environmental and Ecological Issues***

- Many species (including surfclams and ocean quahogs) are moving toward the poles or into deeper waters. This movement is temperature driven. Historically, about half the quota for quahogs used to be taken in the area off the Southern area. The surfclams are increasing in these Southern areas, possibly because of the faster growth rates for surfclams settling when compared to quahogs. Some of the Southern beds that used to be quahog beds now have surfclam recruitments.

- The natural shift in the stocks distribution northwards has driven the movement of the fishery. For more details, see the Surfclam Information Document.

- The issue of bottom tending mobile gear impacts on habitat will continue to be a concern. The environmental community is focused on these issues and there has been a push for increased closures as a tool to reduce habitat impacts. Many of the approaches used are not always based on the best available information to describe impacts and possible approaches. The spatial area for the fishery is small and the gear impacts are considered to be minimal and temporary in nature, due to the high energy sand environments.

- Three positive aspects to support the sustainability of the surfclam and ocean quahog resources include, 1) the opening of Georges Bank has mitigated some of the prior concerns by providing access to more, larger clams and alleviating some of the fishing pressure from the Southern areas, 2) there are ongoing discussions and research projects examining how best to protect small clam areas and increase productivity of the surfclam and quahog stocks (Science Center for Marine Fisheries; SCeMFIS), and 3) compliance with the MSC certification process on an ongoing basis.

### ***Management Issues & Management Induced Effort Shifts***

- The Mid-Atlantic Council needs to be more involved in habitat issues (and other issues) that are being proposed through the New England Council process. Many gear or fishery closures are being proposed for species such as groundfish, that will impact surfclam, ocean quahog, and other fisheries (e.g., Georges Bank, Great South Channel, Nantucket Shoals, etc.). The Council now has additional seats on the Habitat Committee to better engage with the New England Council on issues that affect surfclams and ocean quahogs. Advisors urge the Mid-Atlantic Council to appoint members from states that are most engaged and knowledgeable about these fisheries. For industry, keeping up to date and being proactive about what is being proposed is an additional cost. Small fishermen are less able to afford to send people to meetings to stay engaged on the issues.
- Advisors ask the MAFMC to provide the Bureau of Ocean Energy Management (BOEM) all relevant data on surfclam and ocean quahog habitat and highlight the devastating effect a BP like disaster would have on our fishery if oil and gas leases were given out in the waters to the south [in Mid-Atlantic] that are now under consideration.
- The clam industry is concerned about the wind farm leasing process and any mitigation procedures that are undeveloped at this point. The industry wants opportunities to engage on wind array siting relative to the most productive clam fishing beds. BOEM has sold wind energy lease areas off of NJ that correspond with historically important surfclam harvest areas. Industry coordinated the work of Toni Chute (NOAA) and Brian Hooker (BOEM) to produce GIS mapping layers of US Atlantic Coast Surfclam Landings between 1985 - 2014 by 10 minute square and 5 year time periods as a tool to mitigate the wind energy siting consequences to the fishery. This interactive tool can be found at: <http://arcg.is/1ONVCyL>

### ***General Fishing Trends***

- Effort is moving northward because the catch rates are higher, resulting in a smaller footprint from dredging activity on habitat. For more details, see the Surfclam and Quahog Information Documents.
- The larger vessels will be accessing Georges Bank, because of the distances traveled and effects of weather. Nantucket Shoals is a smaller boat fishery.
- The larger surfclam vessels going to Georges Bank has taken pressure off some of the nearshore areas, and Southern areas.
- The landings per unit effort (LPUE) may not be indicative of abundance because it only reflects the fishing occurring in a few ten minute squares. The Stock Assessment Review Committee (SARC) panel recommended a more detailed analysis be undertaken on LPUE, and did not make definitive conclusions about the utility of LPUE as an index of abundance. The advisors noted that the LPUE's in the 1970's and 1980's were lower, then increased, and then decreased again. The Advisors were concerned that some of the figures in the CRD13-04 did not include these longer time series showing those initial lower levels. These longer time series figures are in the final assessment report.

- The LPUE has leveled off in recent years. The increases on Georges Bank offset the reduction in LPUE for the areas off NJ for the large clams to use for fried clams.

- 3 vessels are working on Georges Bank for surfclams. When transiting vessels are under time constraints because of product quality, so the 2 smaller vessels (which are slower) stay in the same area while the larger vessels steams further to the east.

- Industry have voluntarily implemented closed areas for small surfclams to maximize use of the resource. The program began about 6 months ago. The Science Center for Marine Fisheries (SCeMFiS) is doing the survey and sampling for the area (annually). Processors and boat owners agreed to close a significant area off Ocean City, MD, and an area off Point Pleasant, NJ (250 square miles). It is being monitored using VMS and associated geo-fencing, and there is an agreed penalty schedule for fishing in the area.

### ***OY***

- The industry was comfortable with a maximum OY of 3.4 mil bushels for surfclams in terms of production. For ocean quahogs a maximum OY of 6 million bushels is reasonable in terms of production. Landings for quahogs have been below the OY range because of demand for quahogs.

### ***Other Issues***

- The group would like to see *status quo* quotas for the upcoming fishing years; the stability in the quota translates into stability in the fishery and market.

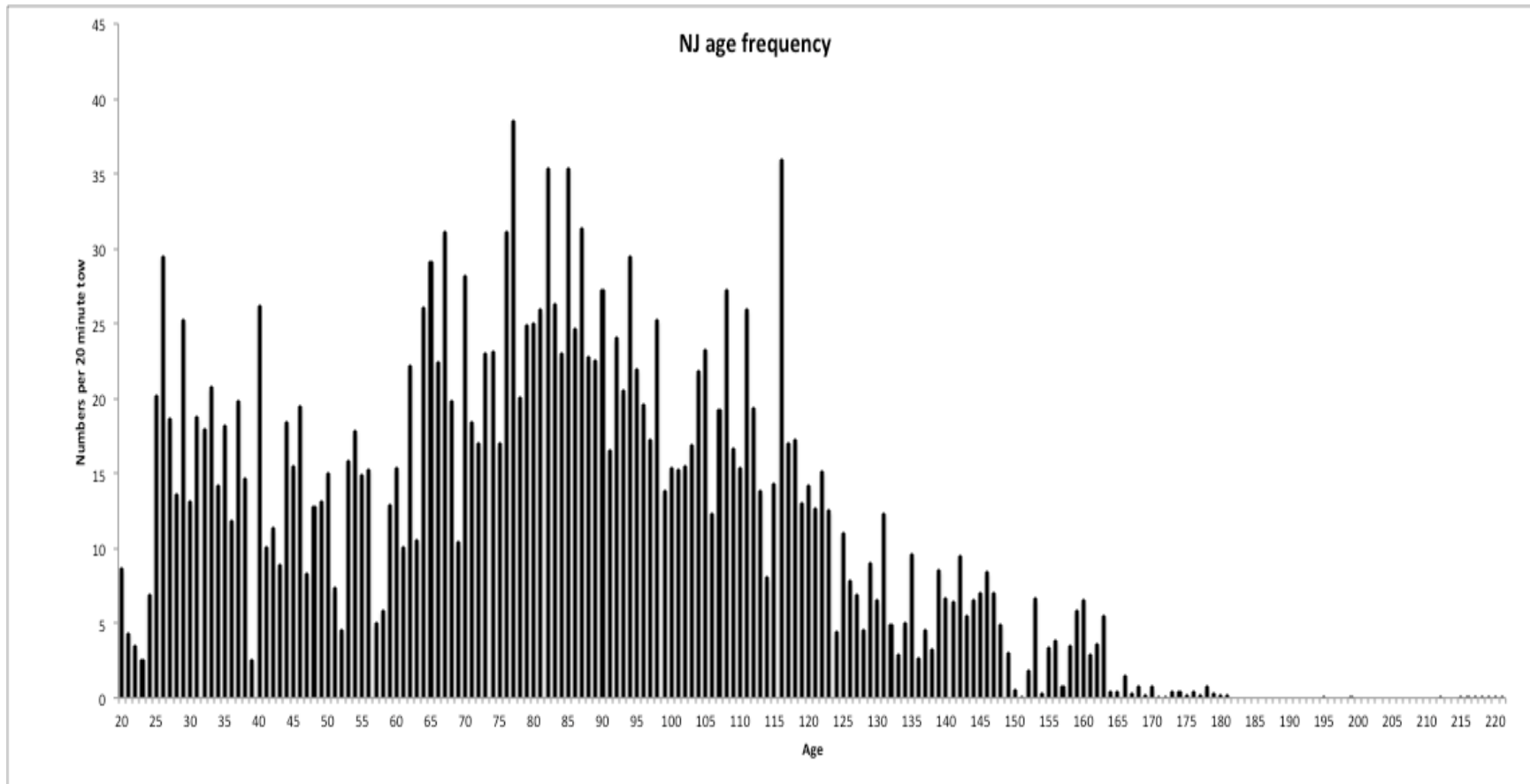
- The clam fishery is the first fishery doing electronic reporting on a per vessel and trip basis (“e-Clams”). It is still being evaluated and tested by NMFS, so both paper and electronic logs are being used and matched. The information should be available in more real time once implemented.

- The new SCeMFiS is industry and National Science Foundation (NSF) supported and has several ongoing and recently completed research projects:

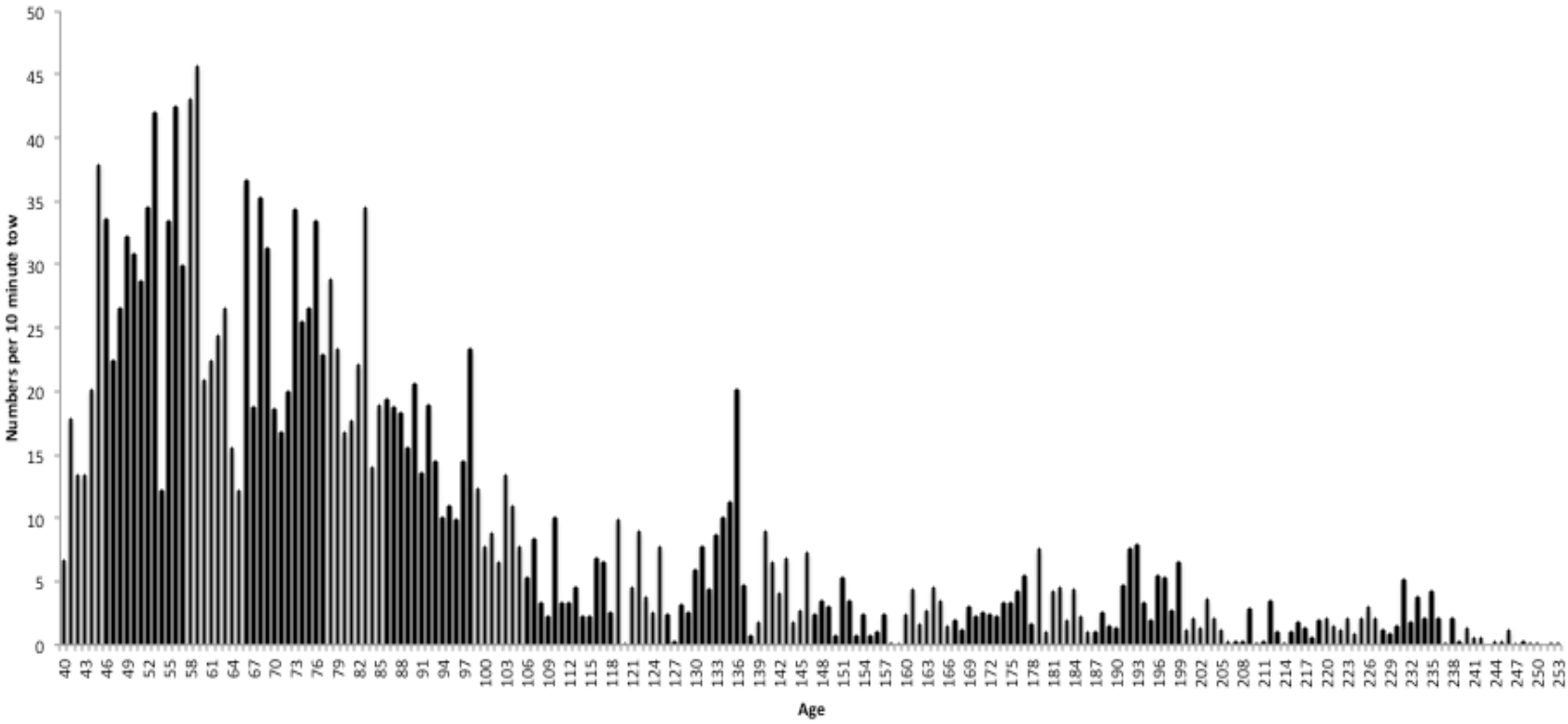
- SCeMFiS, with contributions from NMFS NEFSC, has completed research into data corrections for the breakage of clams in survey mode. This research was taken up because of the additional breakage since switching over to an industry vessel for surveys. If any size clam, large or small, experienced disproportionate breakage the age demographic of the population would not be accurately represented in the assessment. The final report is available on the SCeMFiS website.
- SCeMFiS has completed the fabrication of a dredge for the collection of juvenile (pre-recruit size) ocean quahog and surfclams. The new Dameron-Kubiak dredge, to be used for selectivity sampling typically conducted during survey operations, has been tested by the NEFSC, NMFS, and found to improve selectivity experiments. The final report is available on the SCeMFiS website.

- SCeMFiS has evaluated an area management strategy for the surfclam fishery as one of its projects. The final report is available on the SCeMFiS website.
- SCeMFiS has funded Ocean Quahog recruitment and life history dynamics research. SCeMFiS research does not agree with the long held belief that major quahog recruitment events appear to be separated by decades, that ocean quahogs are relatively unproductive with infrequent recruitment thus vulnerable to overfishing and potential contribution of recruitment to stock biomass and productivity is unknown. The Dameron – Kubiak dredge has shown regular recruitment from the last 60 years down to 10 years of age where the dredge efficiently captures animals. (Recruitment of the ocean quahog (*Arctica islandica*): size and age structure in collections with the Dameron-Kubiak dredge in summer 2014. A final report to Industry Advisory Board (IAB) of the SCeMFiS project number: 2014-02-RM-VIMS now on the SCeMFiS website - [www.scemfish.org](http://www.scemfish.org)). Ongoing studies of age structure from 60 – 180 years of age show regular recruitment with lower reports of very old animals probably due to natural mortality. Major recruitment events appear to be more by chance of larval survival and the fact that the stock is near carrying capacity. For more details see Attachment 1, which are preliminary attached age frequency plots from ongoing research to be released towards year-end with Sara Pace’s master’s thesis.
- SCeMFiS has funded a Surfclam and Ocean Quahog assessment team made up of Drs. Daphne Monroe, Eric Powell and Roger Mann. The team will attend meetings of the Invertebrate Subcommittee, SAW and MAFMC SSC and support the academic commitment to the ocean quahog benchmark assessments. The team will provide new information through the Invertebrate Subcommittee process on historical and recent recruitment to address SSC concerns. The SCeMFiS team will interface with and provide support to the NMFS assessment team during the assessment process with the goal of reducing uncertainty in the assessment process.

**Attachment 1. New Jersey, Long Island, Southern New England, and Georges Bank age frequencies.**

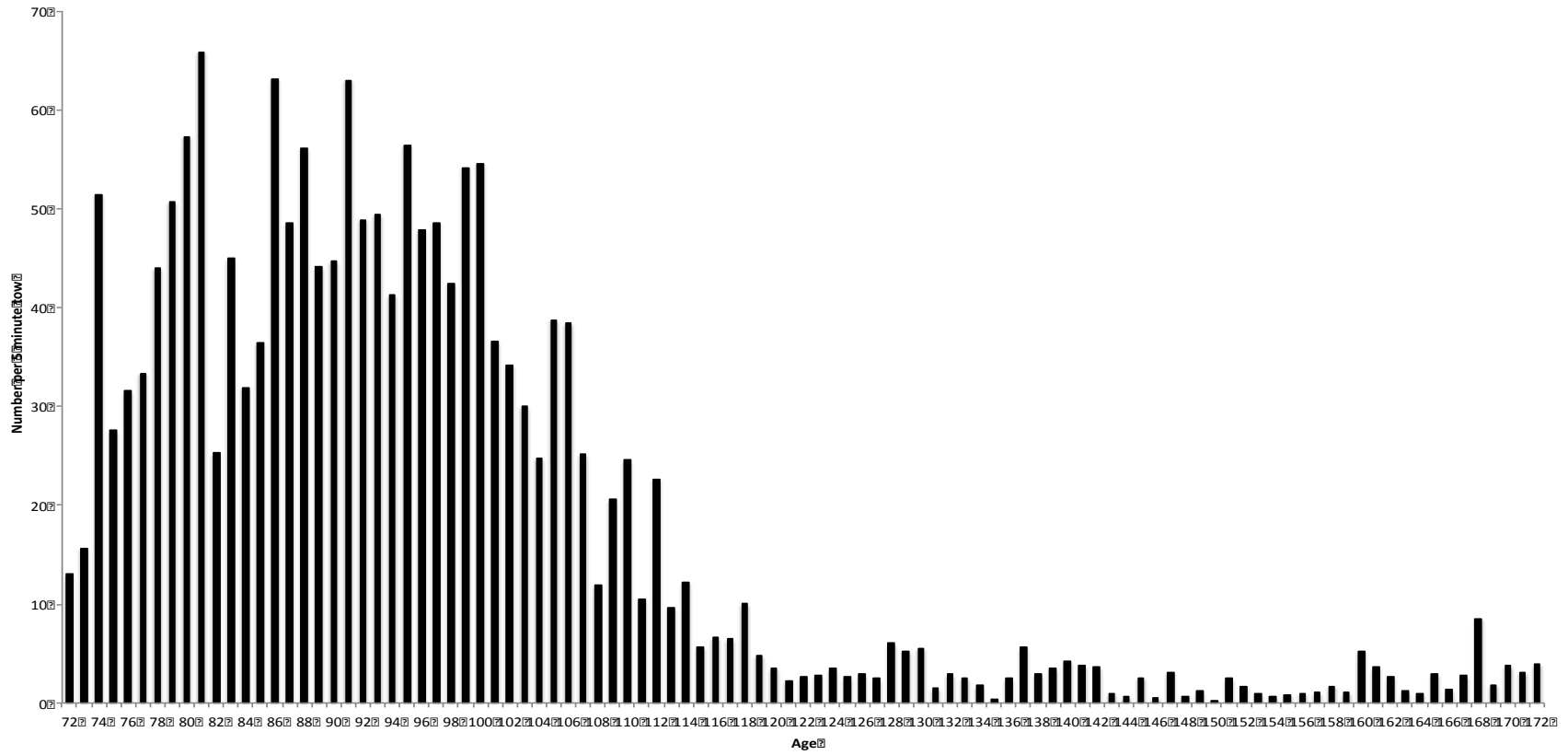


### LI age frequency





SNE Age frequency



# GB age frequency

