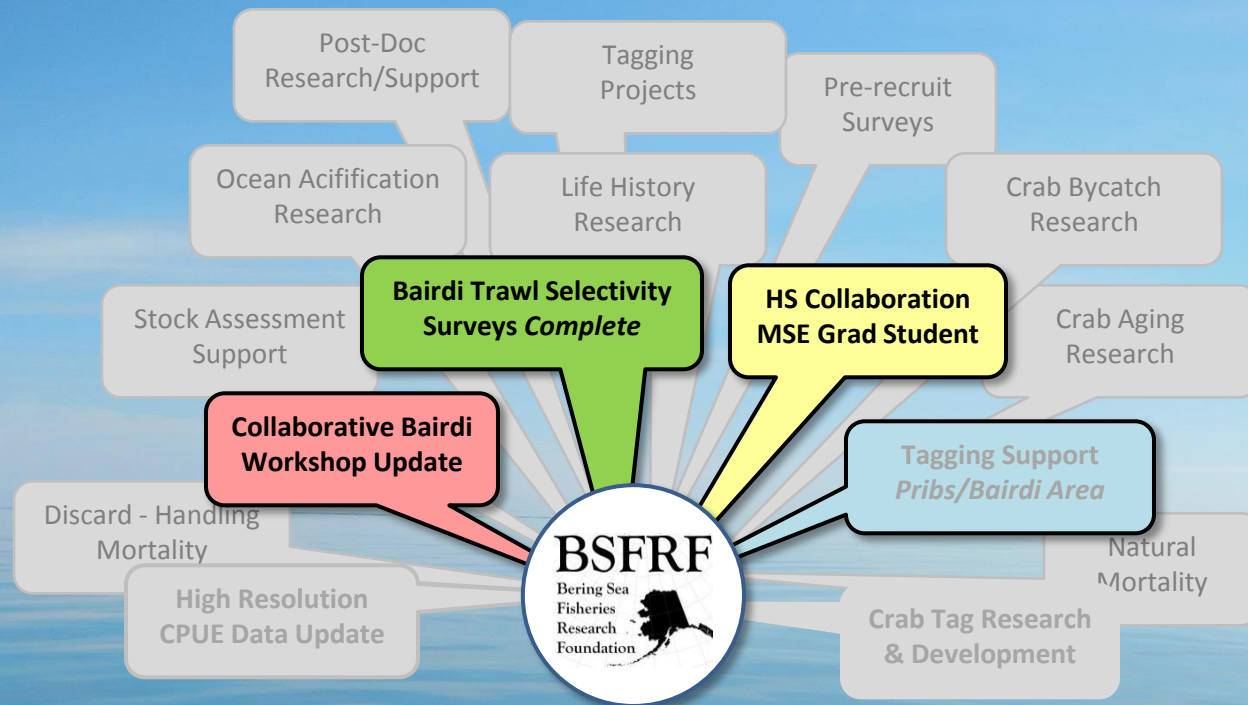


BSFRF Research Update

Focus on 2017/18 Bairdi Surveys,
12/17 Bairdi Workshop, 2018+ HS Collaboration
CPT – September 2018



BSFRF Research



Who We Are...

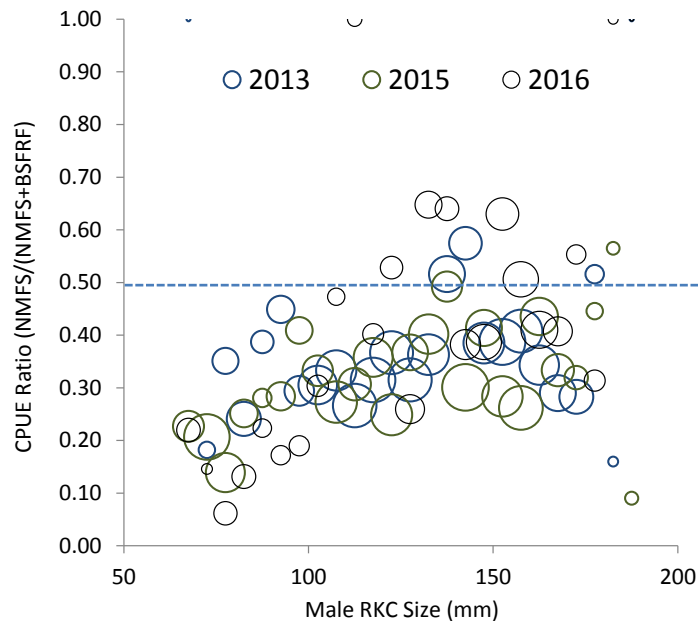
Harvesters - Processors



Cooperative Research Partners

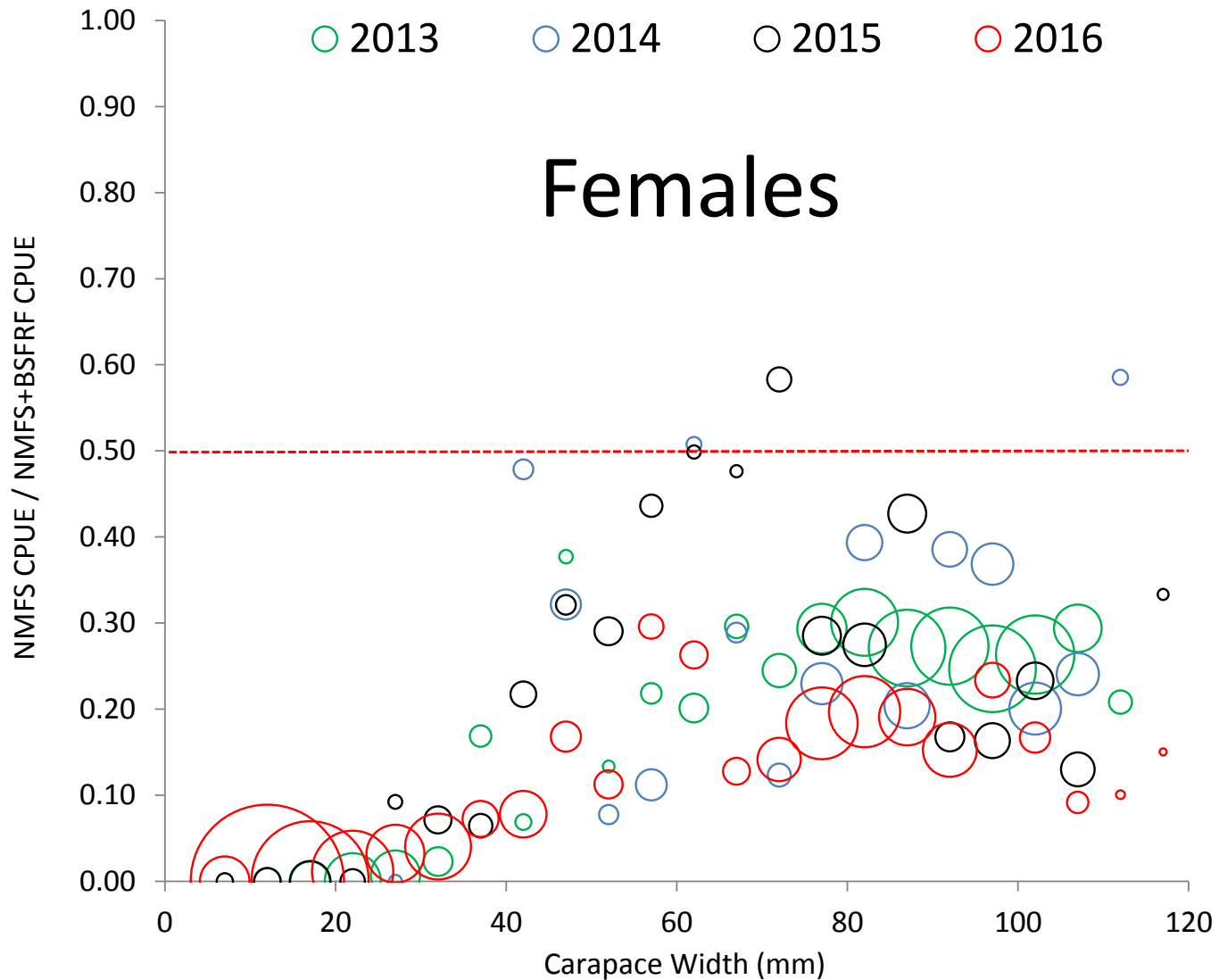


Estimating Trawl Selectivity Accurately

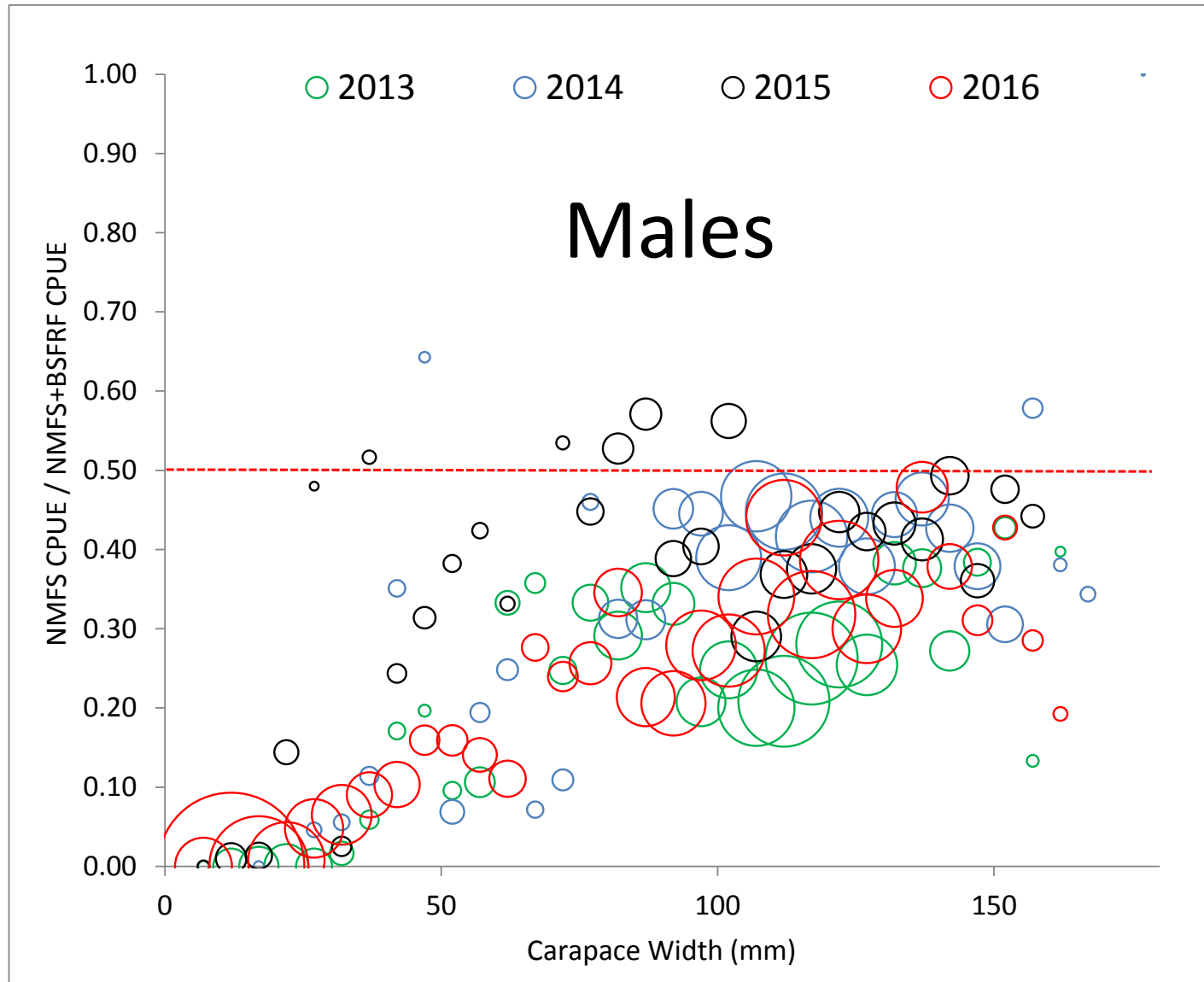


- Updating temporal/spatial trends
- Revising methods per model/species
- Addressing variability in data
- NMFS survey availability
- Other survey availability
- Model scenario selection
- Current models v. GMACs
- Spatial modeling
- Incorporating new data
- Consistent methods across models
- Reviewing influence of herding

Bairdi Trawl Selectivity 2013-2016



Bairdi Trawl Selectivity 2013-2016



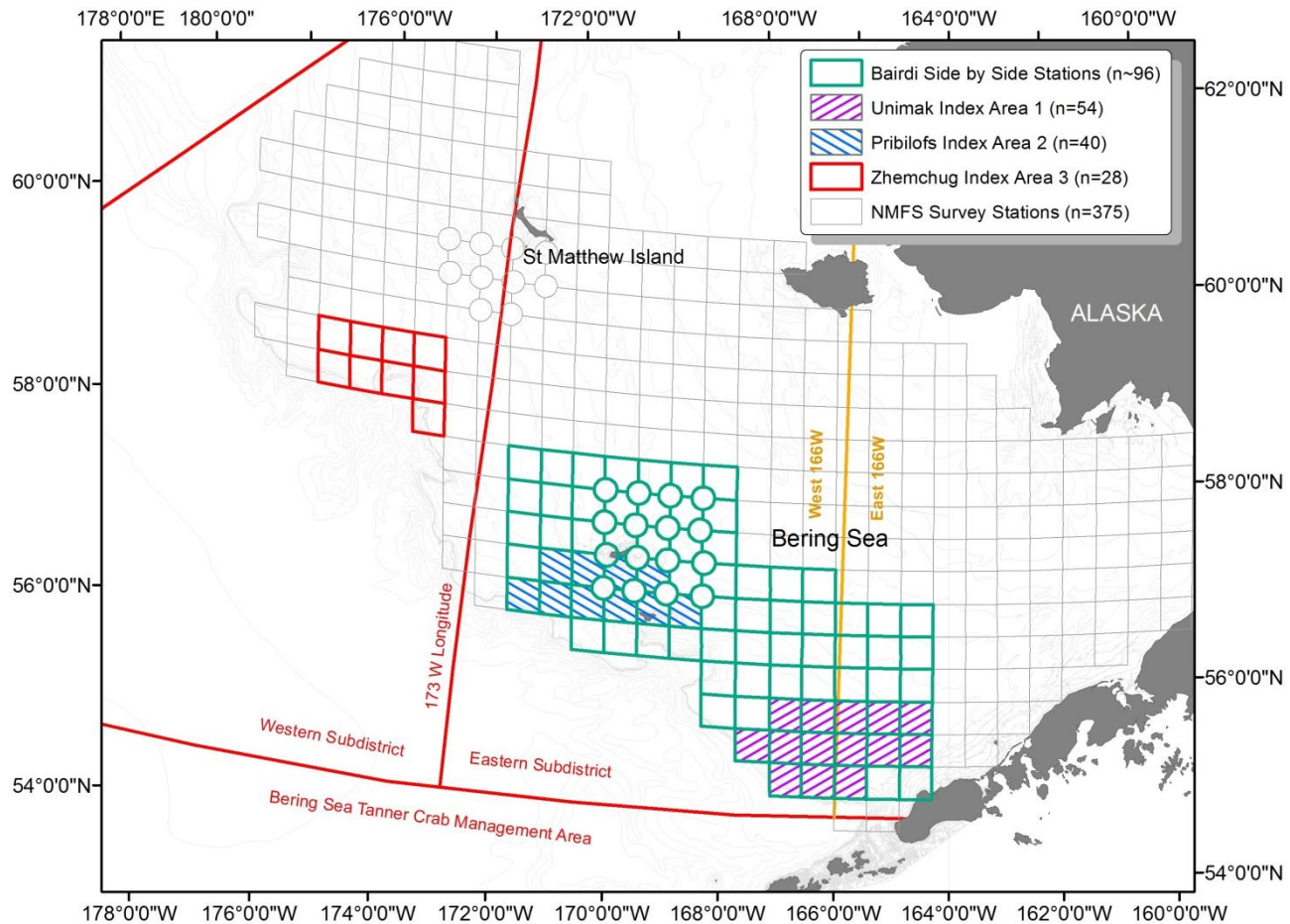
Bairdi Trawl Selectivity

- What we have already? [variability/coverage]
- What is the strategy? [snow/king/Tanner]
- What we are doing this year? [mostly east]
- What's on the horizon – next year? [more west]

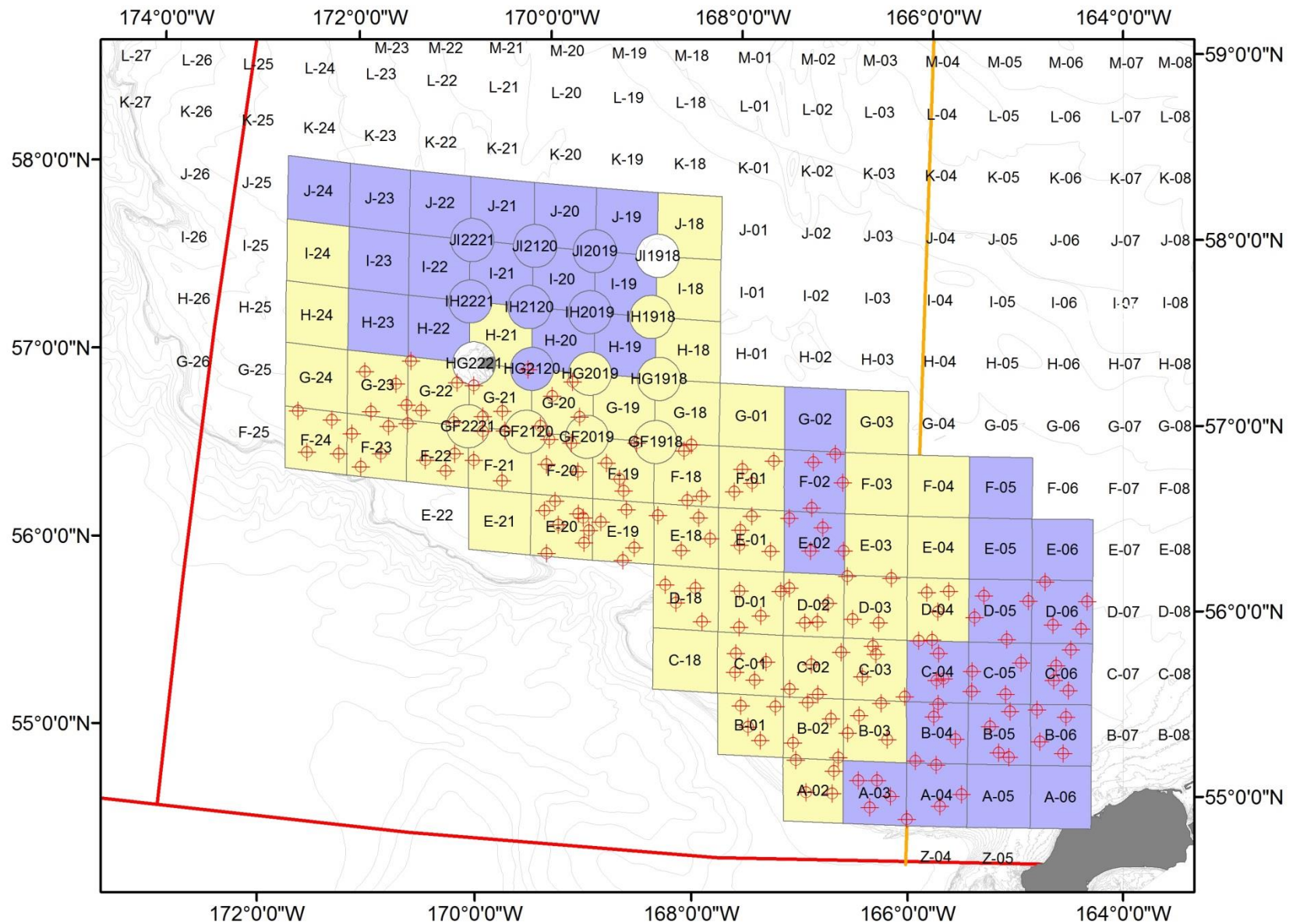


FOCUS ON 2017 – 2018 SURVEYS

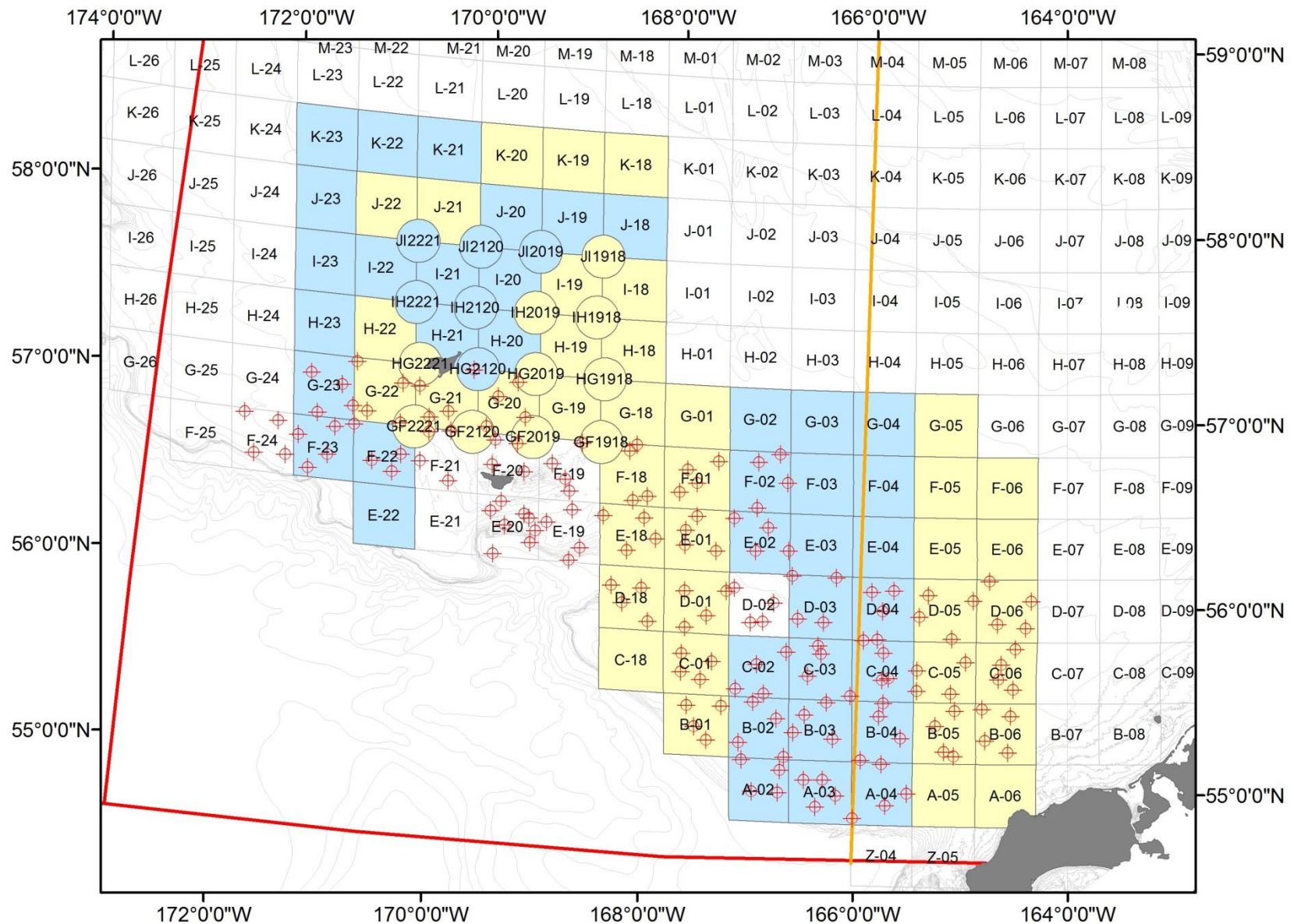
Bairdi Projects – Planned for 2017-2018



Bairdi Survey Stations – Actual 2018



Bairdi Survey Stations – Actual 2017



Bairdi Survey Stations – Actual 2018

- NMFS Survey 259 + Bairdi Stations Total
- 95 side by side stations [56% of catch]
- From NMFS cpue data:
 - 134 stations account for 95% [77 sbs]
 - Top 20 stations acct. for 48% [14 sbs]
- In 95 sbs NMFS 11,000/BSFRF 17,800 catch
- In 95 sbs CPUE NMFS 796k/BSFRF 8,230k
- 155 BSFRF index area tows in 101 stations

Bairdi Survey Stations – Actual 2017

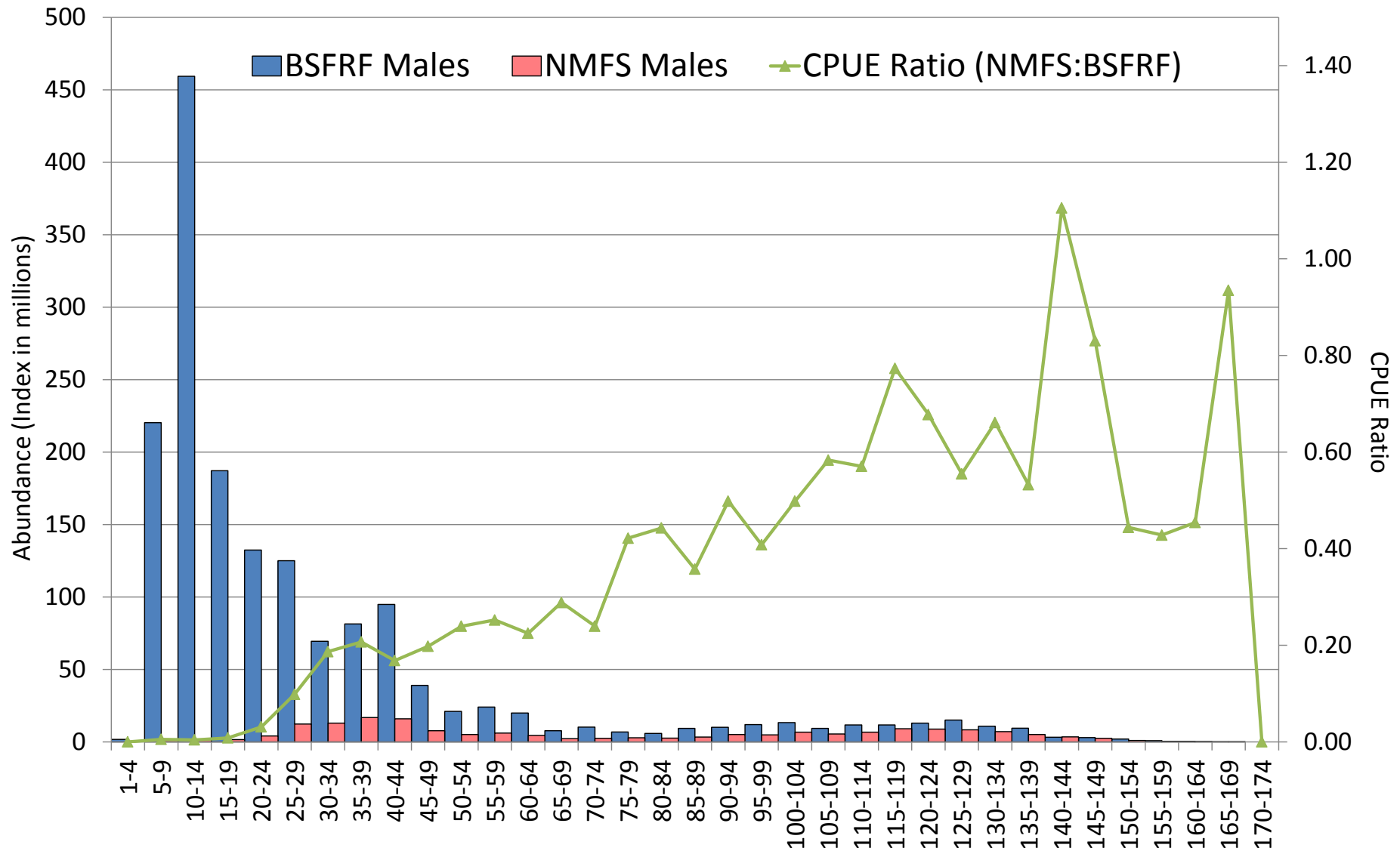
- NMFS Survey 209 + Bairdi Stations Total
- 95 side by side stations [53% of catch]
- From NMFS cpue data:
 - 132 stations account for 95% [72 sbs]
 - Top 20 stations acct. for 52% [11 sbs]
- In 95 sbs NMFS 12,600/BSFRF 22,400 catch
- In 95 sbs CPUE NMFS 921k/BSFRF 6,149k
- 156 BSFRF index area tows in 101 stations

Bairdi Survey Comparison – 2018 vs. 2017

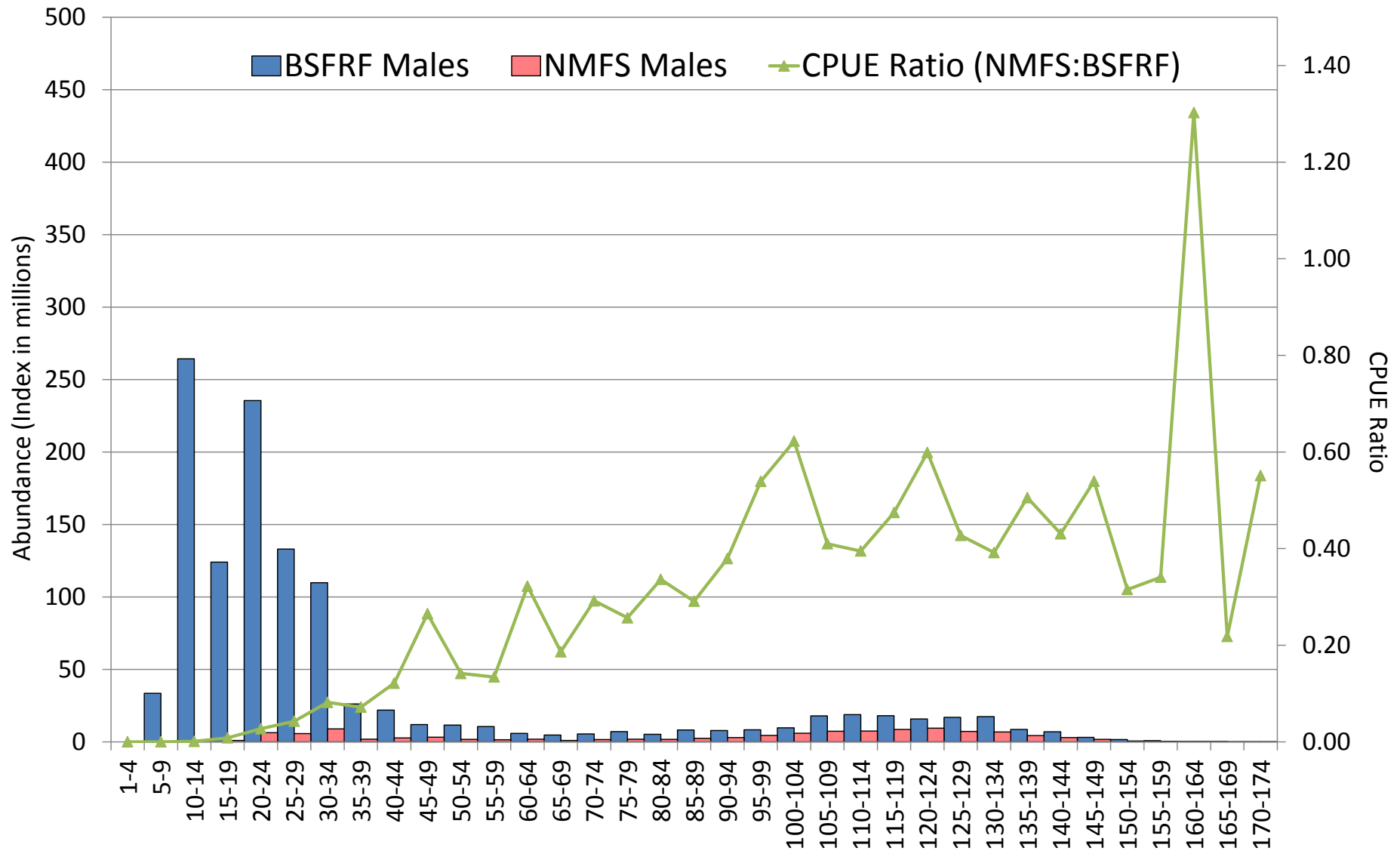
Spatial Coverege	2018	2017
NMFS "+" BRD stations	259	209
# SBS stations	95	95
% NMFS catch SBS stations	56%	53%
# NMFS stations 95%	134	132
# SBS in 95% stations	77	72
Top 20 stations % Catch	48%	52%
# SBS in T20 stations	14	11

In SBS stations only	2018	2017
NMFS BRD total catch	11,000	12,600
NMFS BRD total CPUE	796,000	921,000
BSFRF BRD total catch	17,800	22,400
BSFRF BRD total CPUE	8,230,000	6,149,000

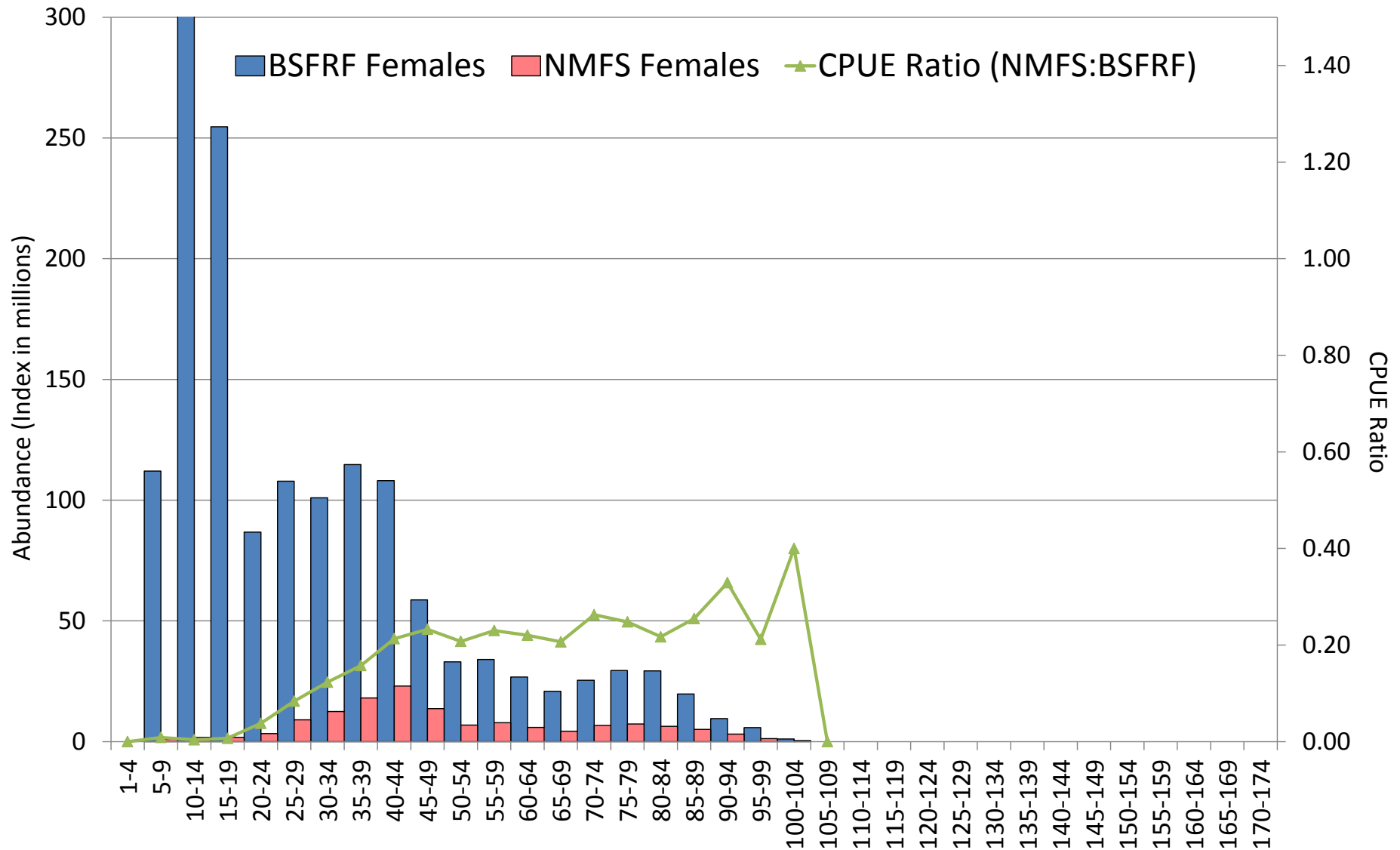
Bairdi Trawl Selectivity 2018 – Expanded Side by Side



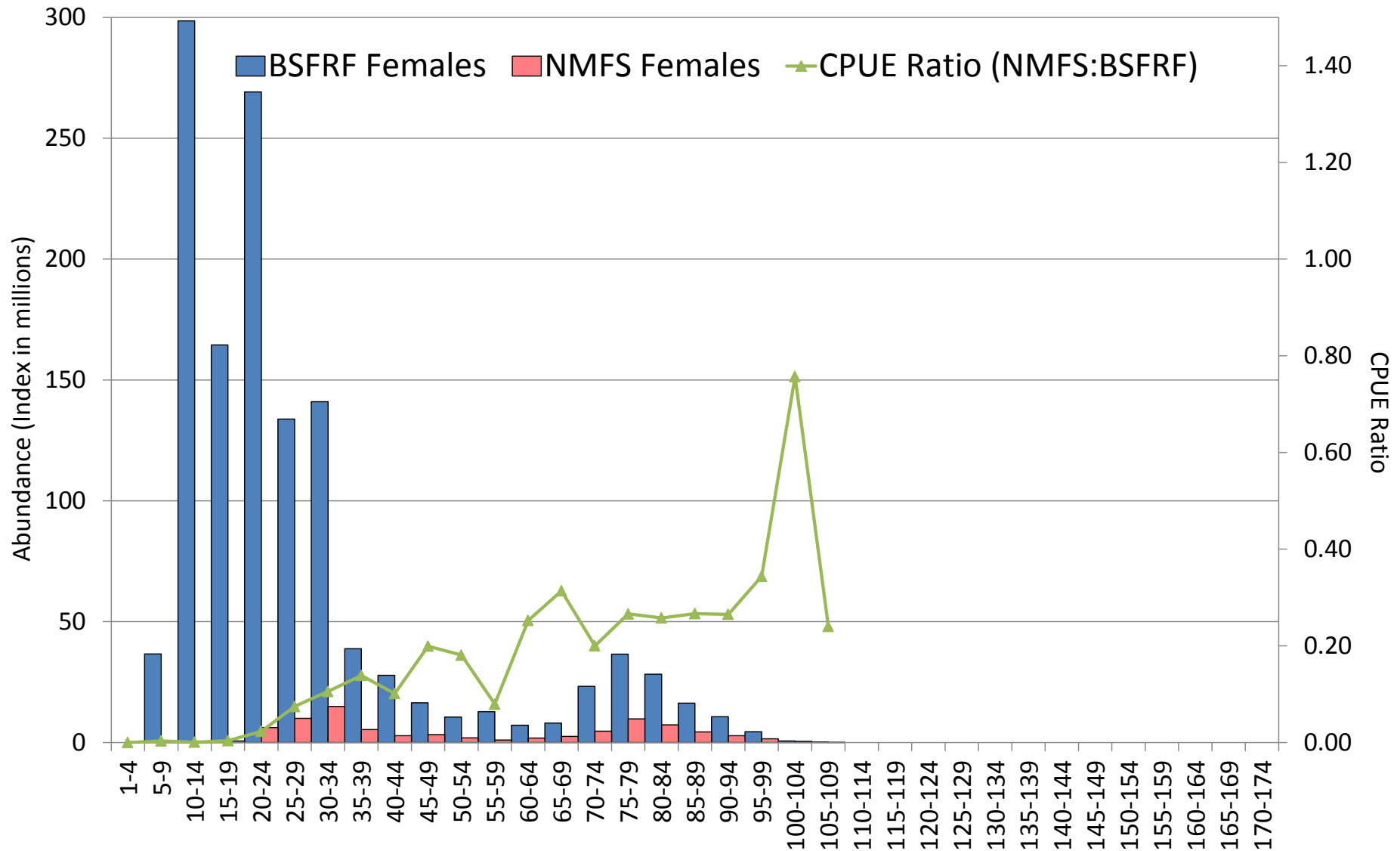
Bairdi Trawl Selectivity 2017 – Expanded Side by Side



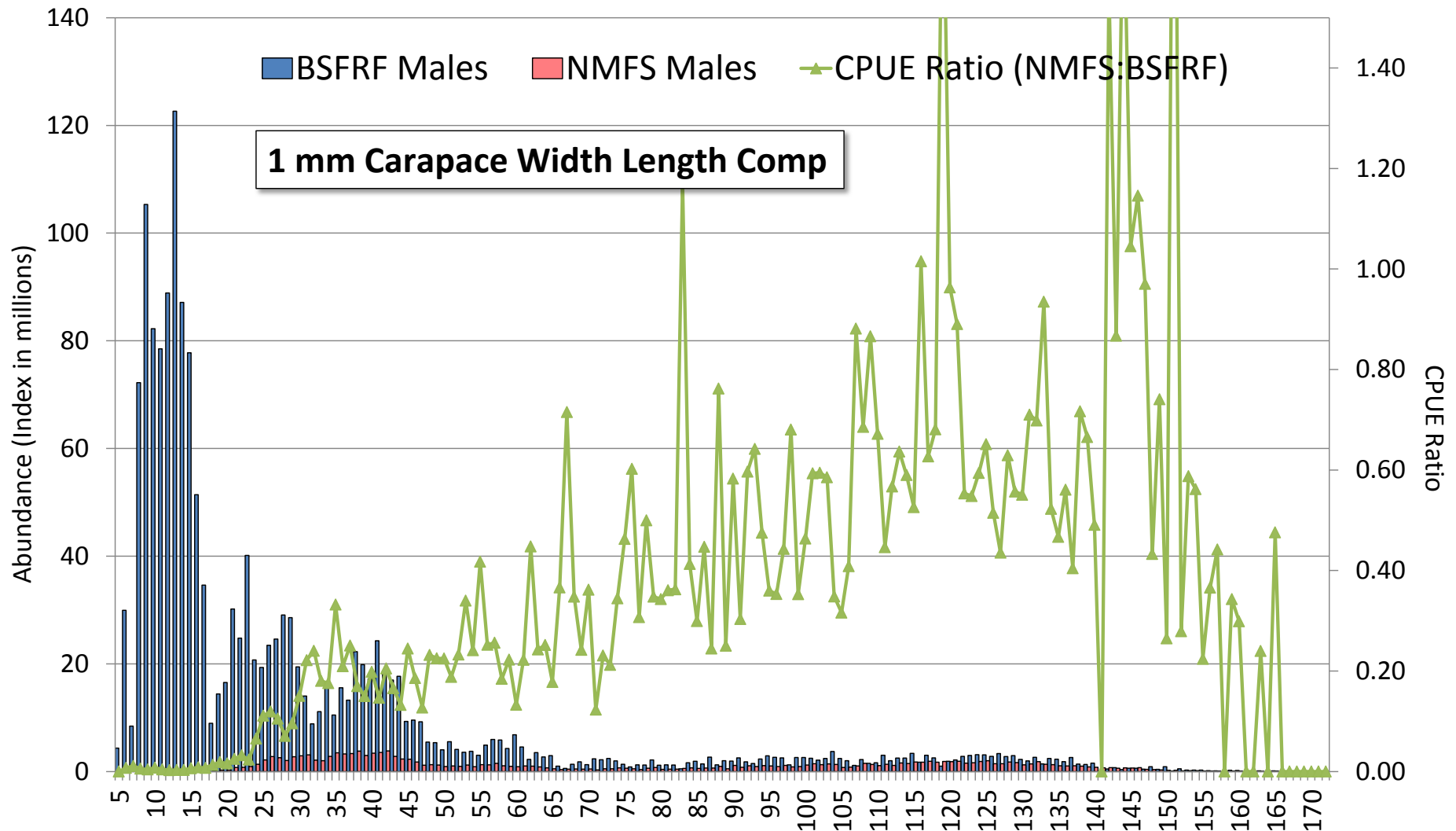
Bairdi Trawl Selectivity 2018 – Expanded Side by Side



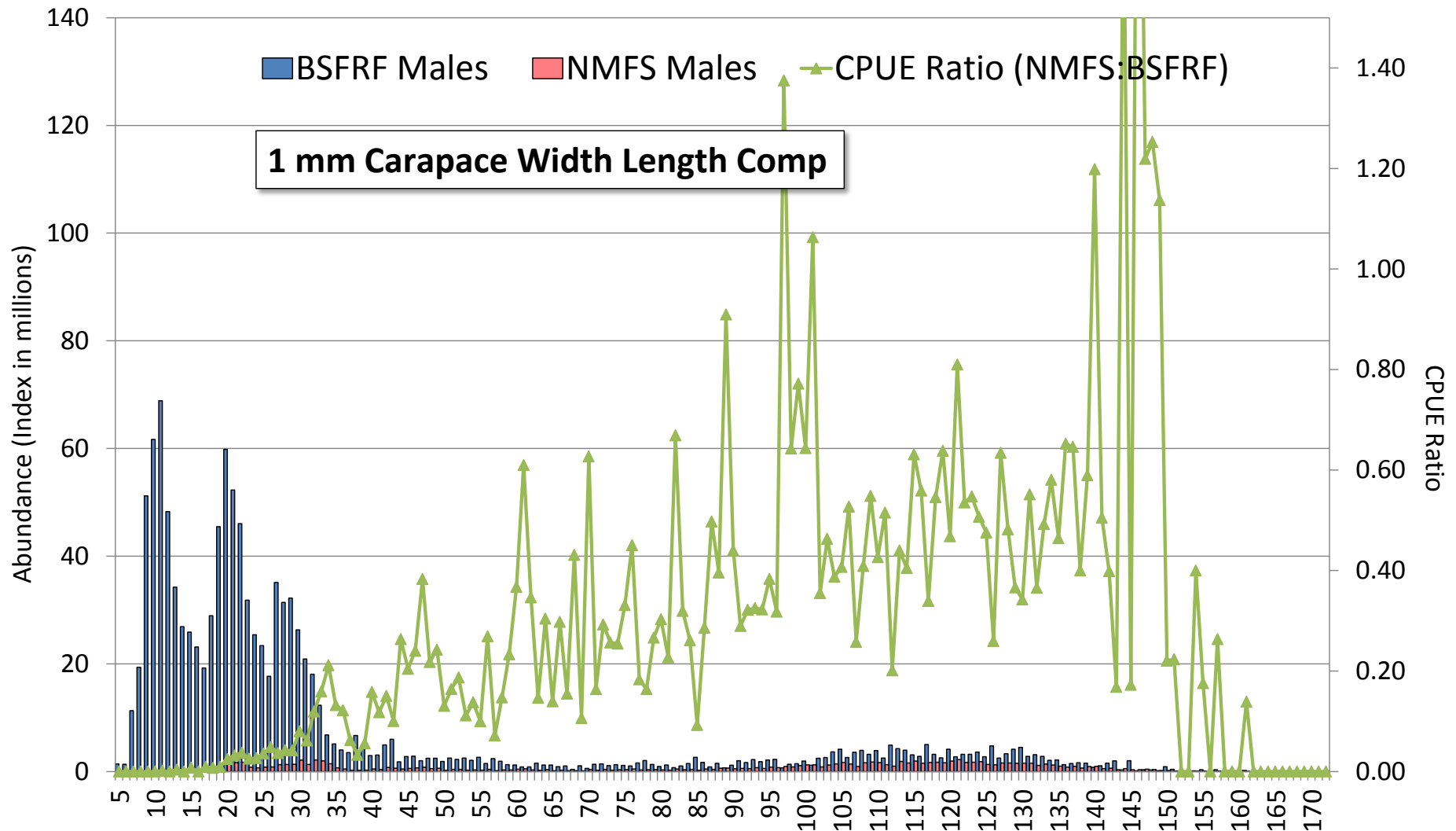
Bairdi Trawl Selectivity 2017 – Expanded Side by Side



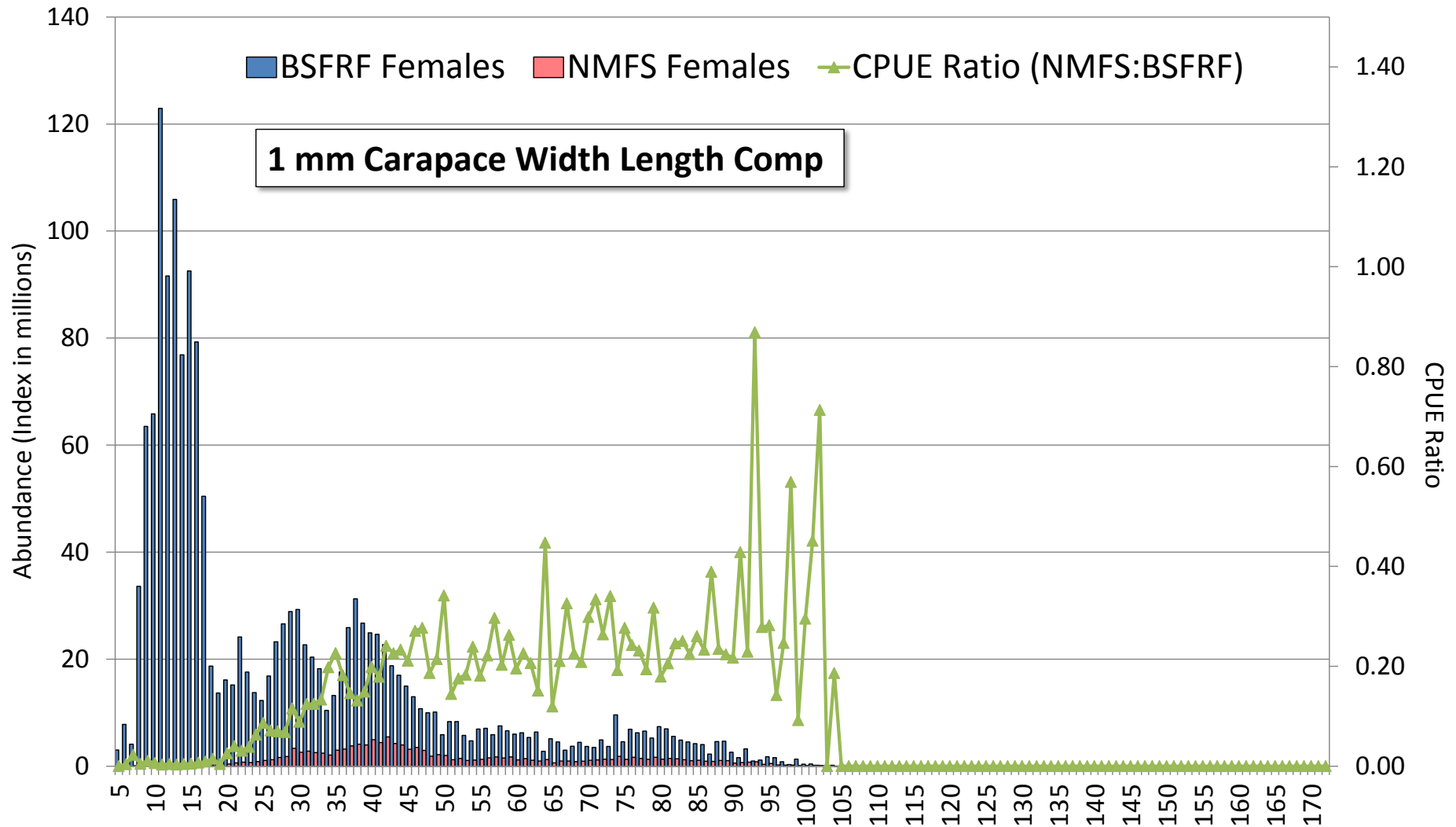
Bairdi Trawl Selectivity 2018 – Expanded Side by Side



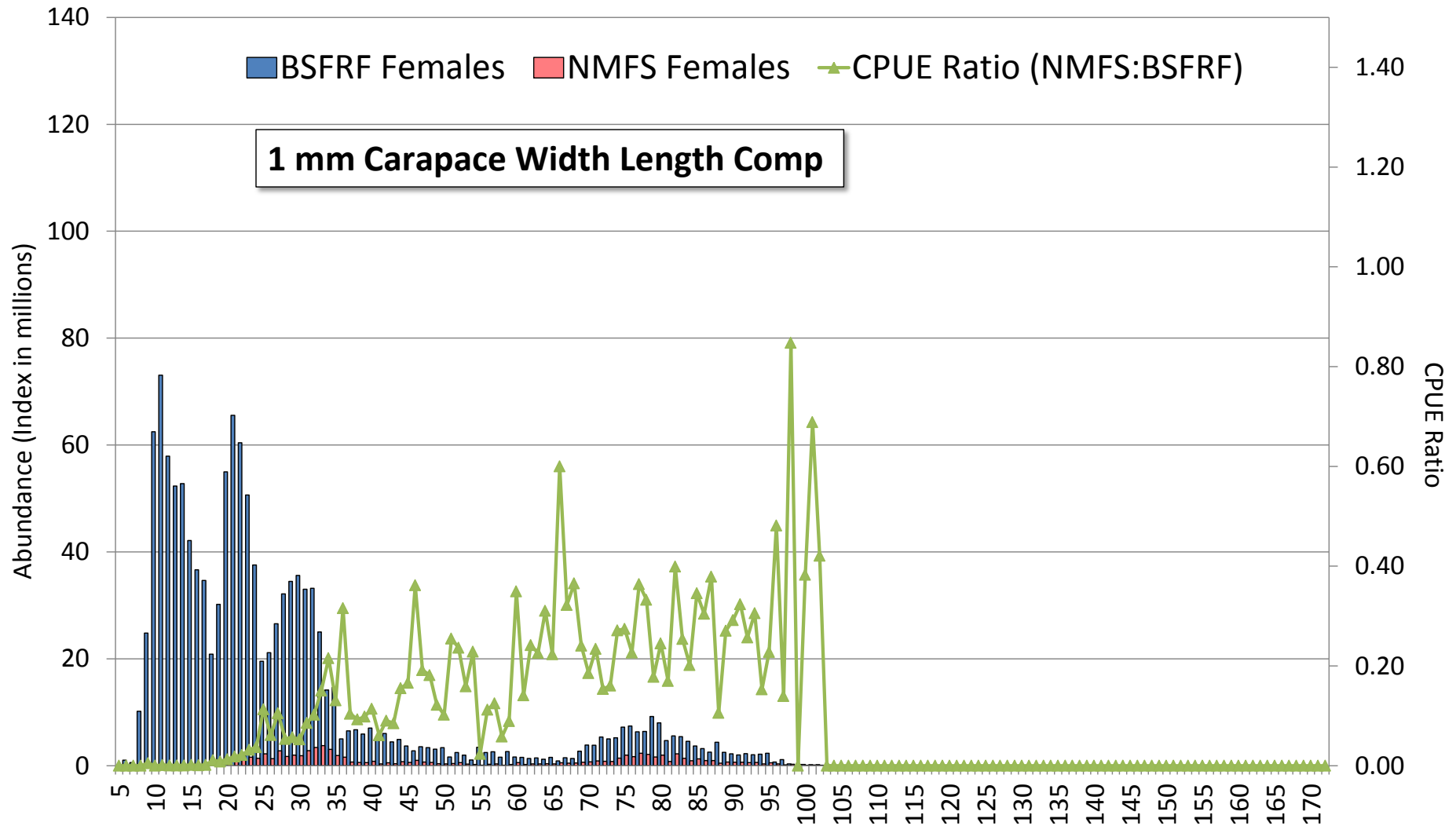
Bairdi Trawl Selectivity 2017 – Expanded Side by Side



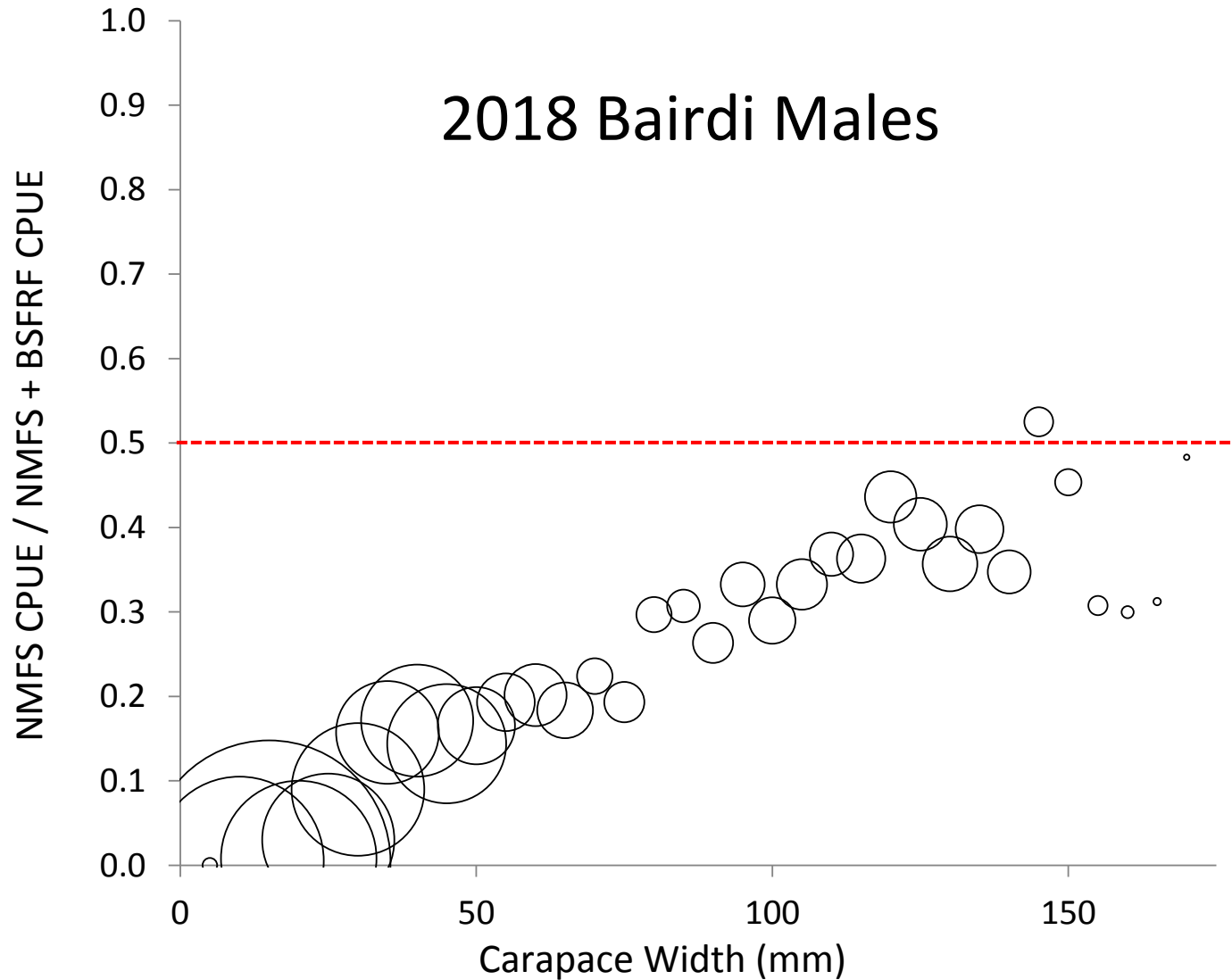
Bairdi Trawl Selectivity 2018 – Expanded Side by Side



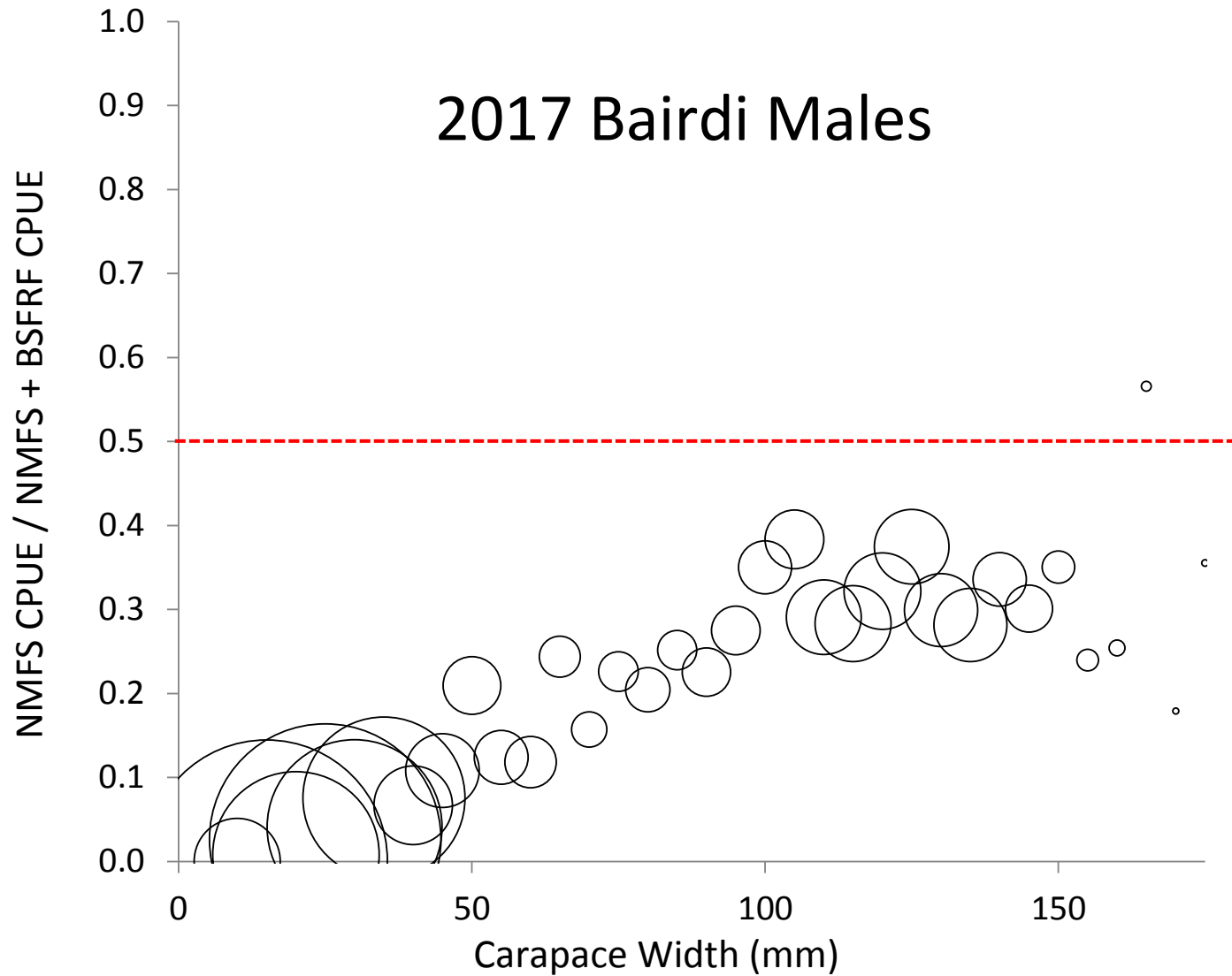
Bairdi Trawl Selectivity 2017 – Expanded Side by Side



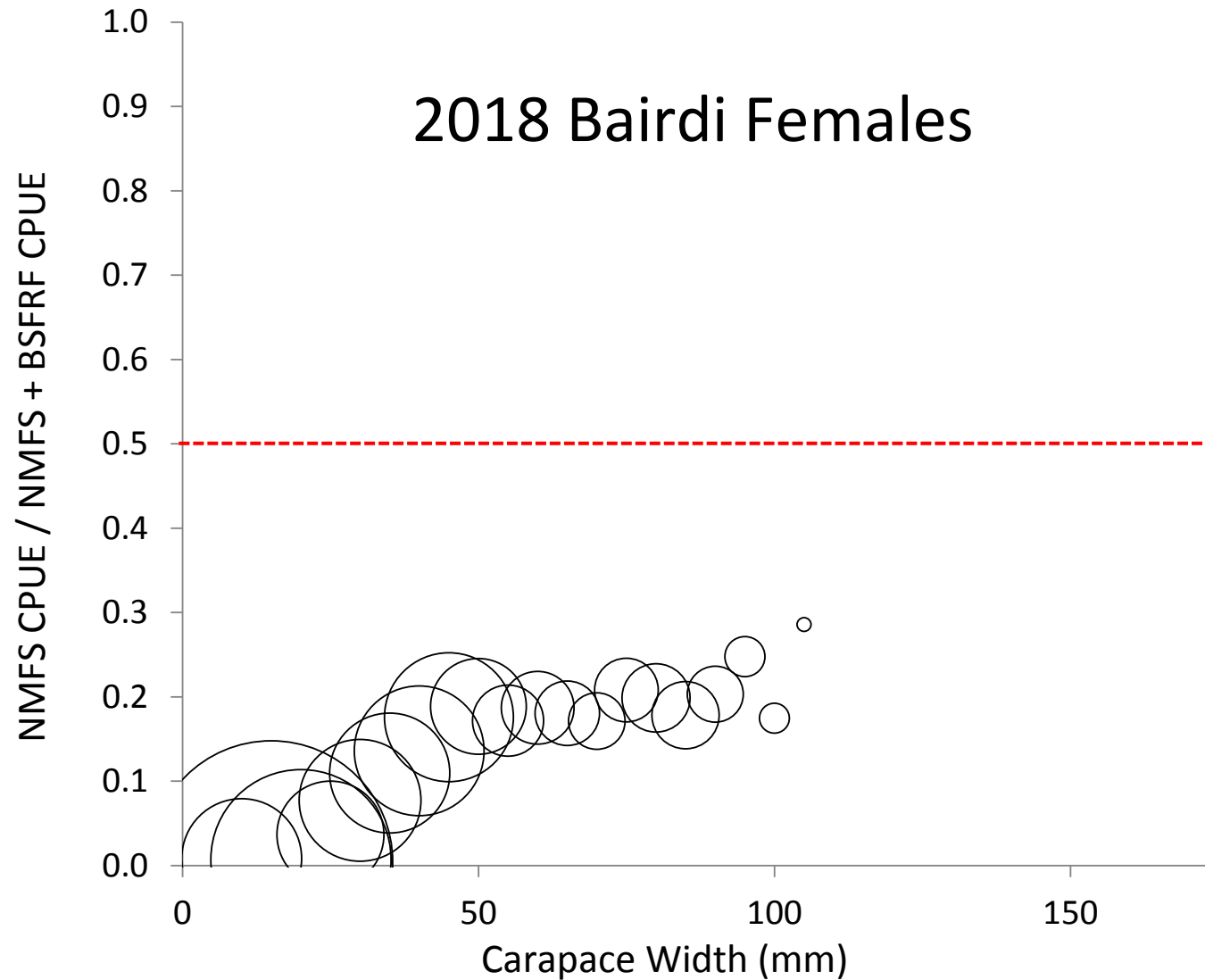
Bairdi Trawl Selectivity 2018 – Expanded Side by Side



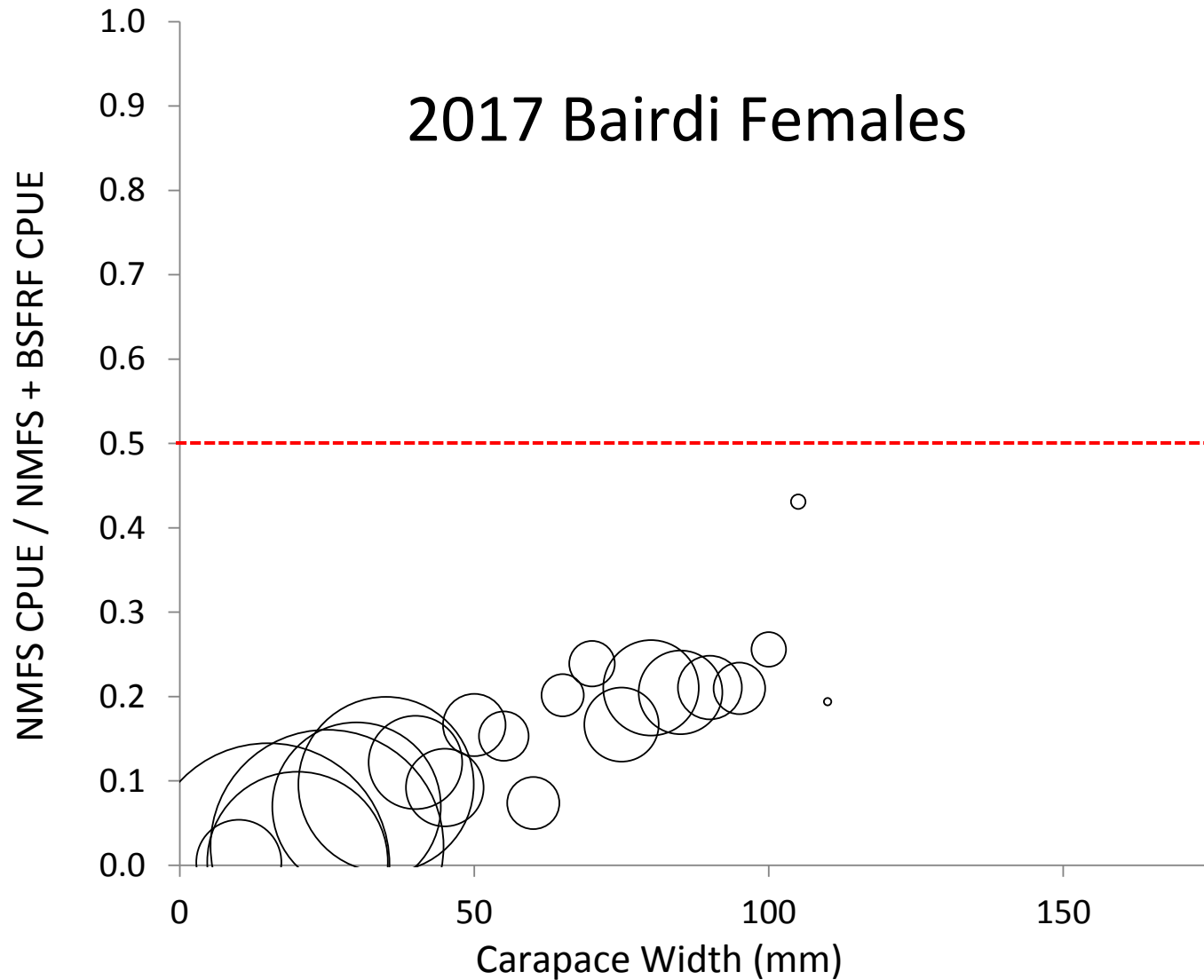
Bairdi Trawl Selectivity 2017 – Expanded Side by Side



Bairdi Trawl Selectivity 2018 – Expanded Side by Side



Bairdi Trawl Selectivity 2017 – Expanded Side by Side



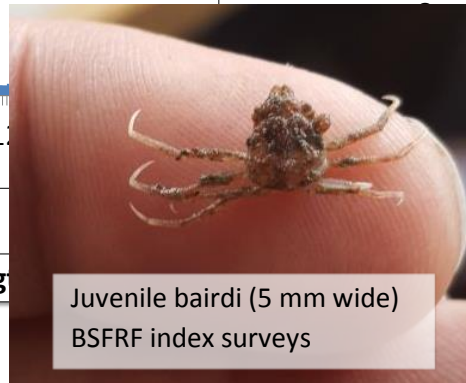
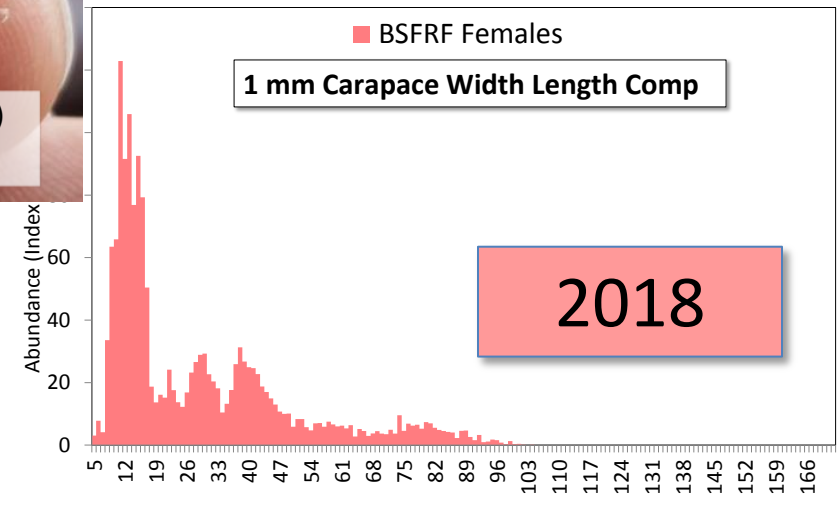
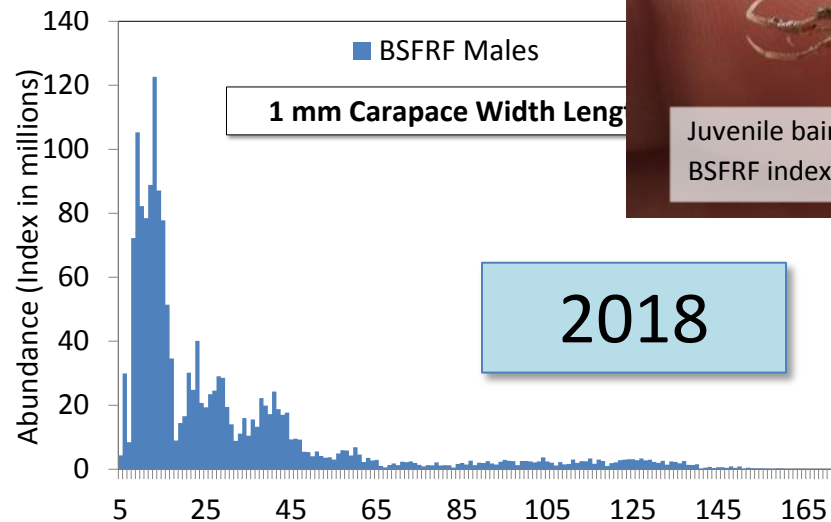
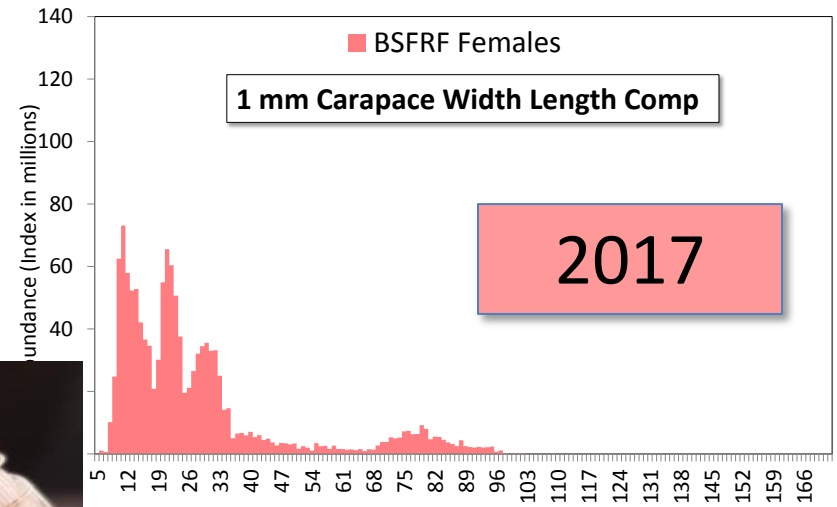
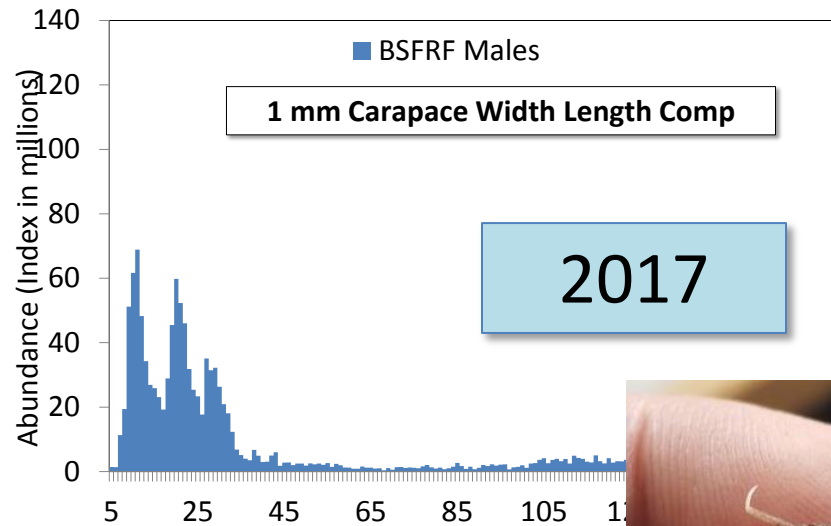
Bairdi Trawl Selectivity – Next Steps

- Incorporating data into model
- Choosing modeling approaches
- Continuing juvenile sampling? - survey data from eastern/western important stock areas
- Reviewing other information from current data

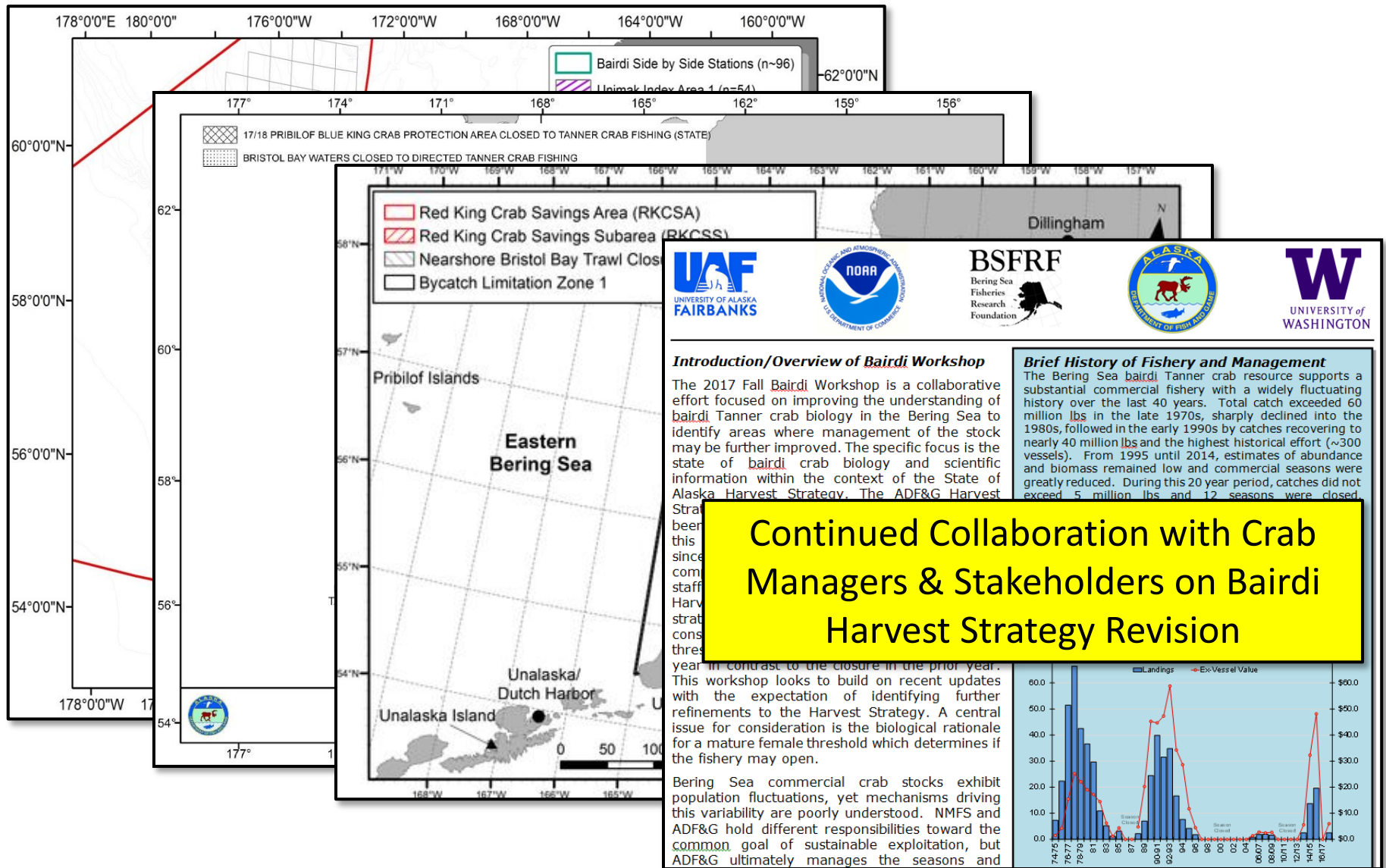


Bairdi Trawl Selectivity 2017/18

Two Surveys – Selectivity & Index Areas



Bairdi / Other Projects – On the Horizon



BSFRF Bairdi Workshop DEC 2017

Document is available on CPT/Council
(page for this meeting)

Filename: 'BSFRF BSFRF 2017 Bairdi
Workshop SummaryInfo 09.10.18'

BSFRF Bairdi Workshop DEC 2017

Workshop Final Recommendations

- 1) The restated objective of the full bairdi harvest strategy revision is:

“Workshop partners recommend an approach to revise the bairdi harvest strategy that improves the economic outlook to the industry and acknowledges the importance of the bairdi reproductive capacity to conserve the stock.”

- 2) Workshop partners agree to a longer term approach that generally follows the schedule requirements of the ADFG and BOF cycle that would bring full bairdi harvest strategy revisions for review in early 2019, final results in late 2019, and for final consideration and implementation by the BOF in 2020.
- 3) Workshop partners agree on a collaborative approach that will allow input from managers and stakeholders, is multi-tasked relying on a number of work products, and will require some intermediate coordination between ADFG, NMFS, BSFRF, graduate students, and potentially other researchers. Work products will include adhoc analyses of harvest strategy scenarios/options, including coordination with MSE/graduate student work. Progress reports will be provided during continued management efforts and Workshop follow-up to all interested managers and stakeholders.
- 4) Workshop partners agree to document the information shared, workshop outcomes, summary of findings, road map forward, and to provide updates as appropriate to Bering Sea crab managers and stakeholders.



Cooperative Research



Questions