



RC39  
***Cordova District Fishermen United  
2021 Board of Fisheries  
Prince William Sound Meeting***

**Record Copy: CDFU Shellfish Division Tanner trawl survey**

Enclosed is:

- Map showing current closed areas to tanner crab fishing to protect nursery grounds
- Map showing current trawl survey areas. Note overlap with nursery grounds.
- Map showing proposed new trawl survey area. Note same overlap with nursery grounds
- ~~Prop 73 where adfg asks to close these nursery grounds to subsistence crabbing.~~
  
- Adfg 2016 pot test fish results and locations showing 29.5 crab per pot. Note this historically high cpue was caught in the middle of the trawl survey area that was showing historically low biomass.
- Results from the 2020 and 2021 pot test fisheries showing historically high cpue in the trawl survey areas. Note adfg has not used the information from these test fisheries in developing their management strategy.
  
- Adfg 2021 and 2020 trawl survey results showing that they are using a total harvest of 11 crab to extrapolate these inaccurate biomass estimates. Note the commercial fleet caught hundreds of thousands of crab in these areas with the commissioners permit fishery. Why is the commercial harvest information not being used to proof the trawl survey?
- ~~Adfg preliminary trawl survey results 2017-2019. Note tiny actual harvest with trawl of hundreds of crab that's being used to build these flawed biomass estimates.~~

# Closed Nursery Habitat Critical Spawning Areas

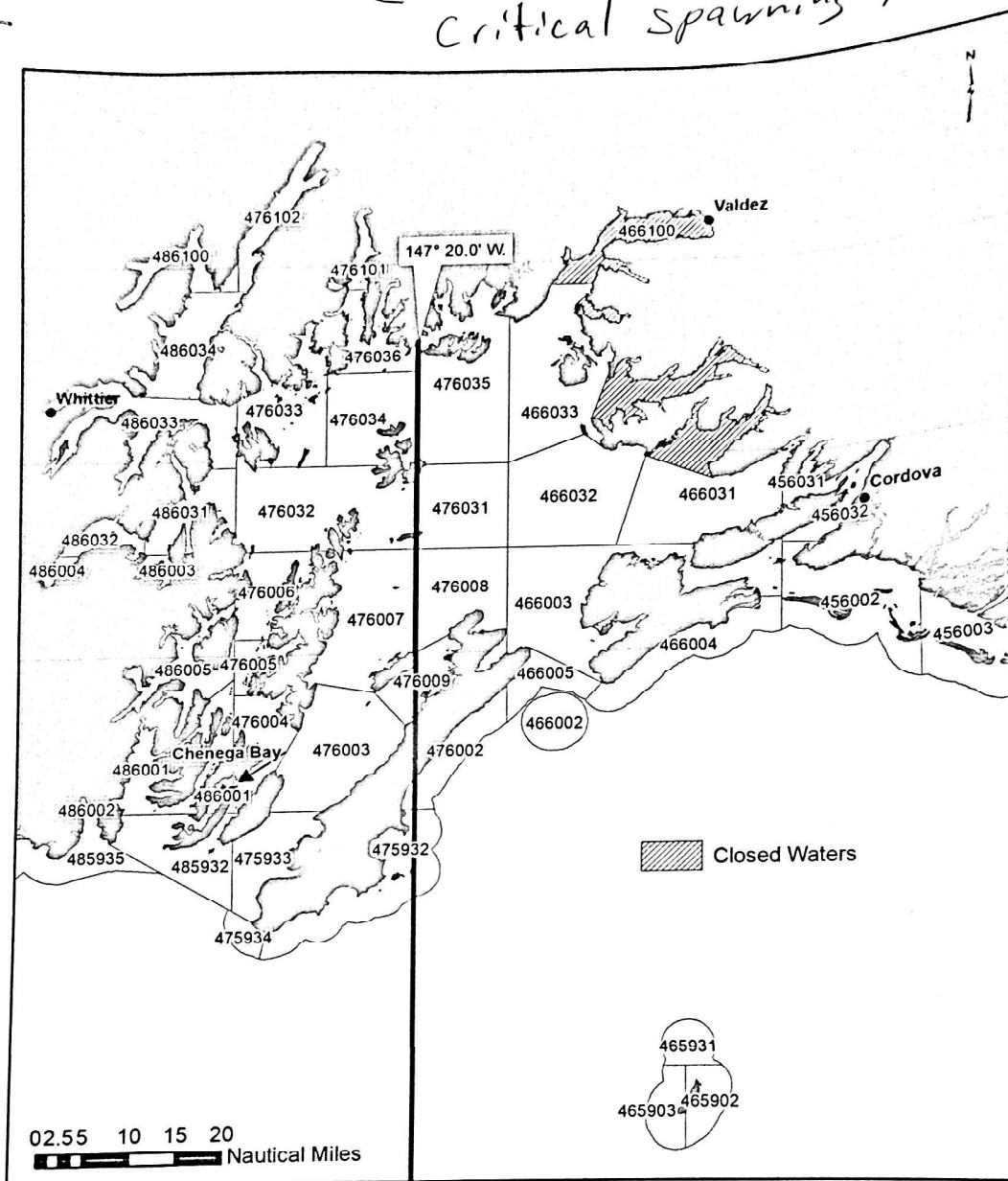


Figure 16.—Prince William Sound Area statistical areas for reporting subsistence fishing location and waters closed to subsistence harvest of Tanner and golden king crab.

# Current trawl Surveys In protected Area's

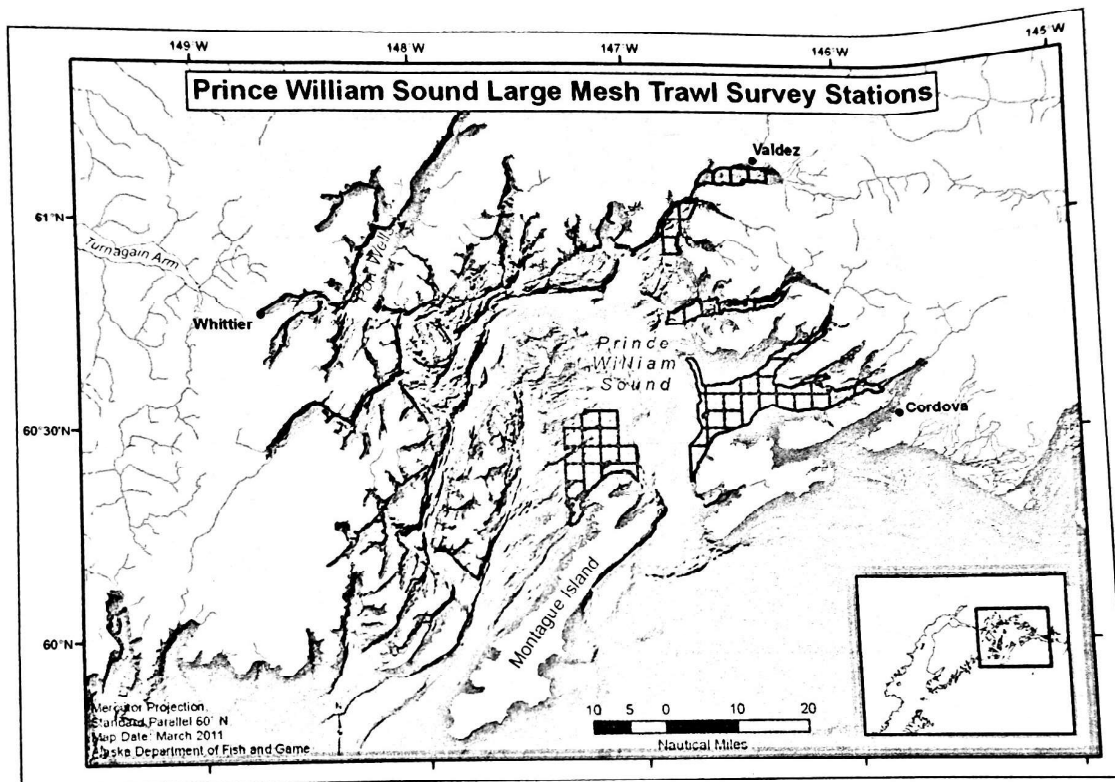


Figure 10.—Prince William Sound large mesh trawl survey locations.

Proposed Trawl Survey  
In protected Area

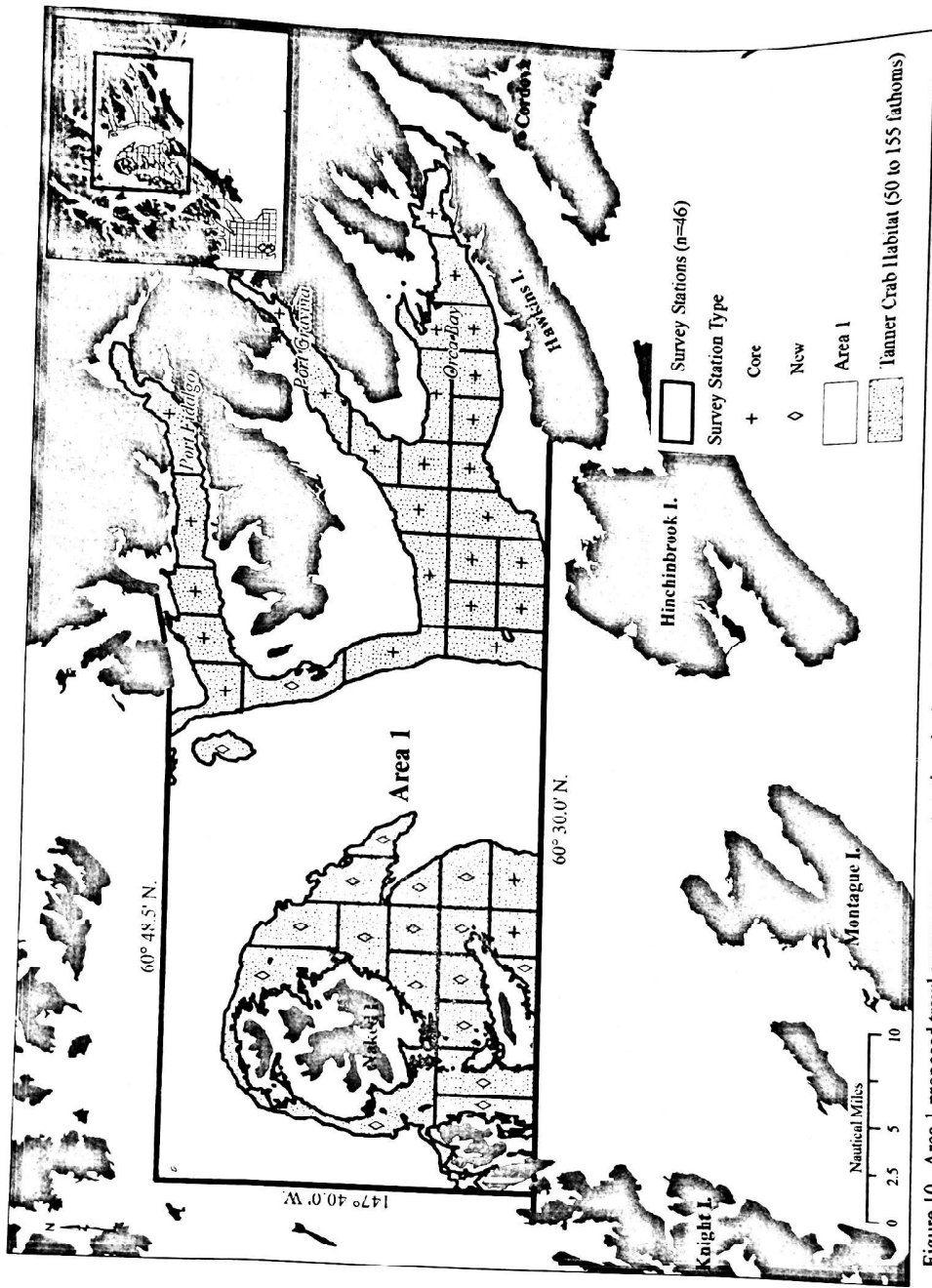


Figure 10.—Area 1 proposed trawl survey assessment stations in the Prince William Sound Area.

# PWS Tanner Crab Test Fishery Results

| District                       | Pots       | # Legal males | CPUE legal                |
|--------------------------------|------------|---------------|---------------------------|
| Hinchinbrook                   | 49         | 44            | 0.9                       |
| Northern                       | 67         | 485           | 7.2                       |
| Western                        | 42         | 37            | 0.9                       |
| <b>Total ADF&amp;G</b>         | <b>158</b> | <b>566</b>    | <b>3.6</b>                |
| Captain's Choice (CC)          | 48         | 1,416         | 29.5 <u>Th or S, 2</u> // |
| <b>Combined ADF&amp;G + CC</b> | <b>206</b> | <b>1,982</b>  | <b>9.6</b>                |

Note: all of the captain's choice pots were set in the Northern District area of highest abundance from ADF&G pot locations; this area is 8 square nautical miles.

The area where the captain's choice pots were placed is in our trawl survey area and will be surveyed in June 2017.



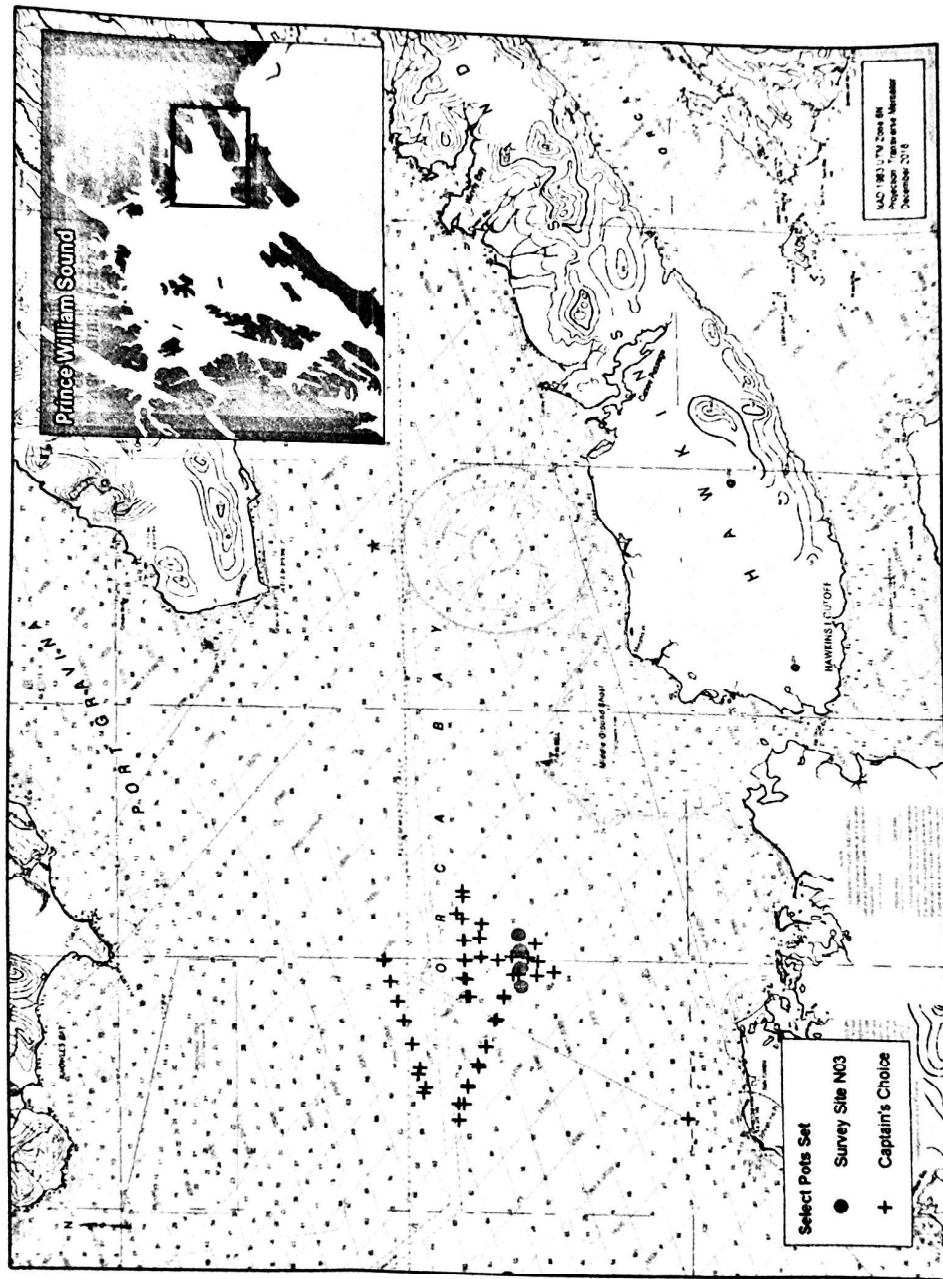


Figure 15.—Prince William Sound area pot locations; ADF&G survey station N03 and captain's choice sets during the Tanner crab test fishery, 2016.

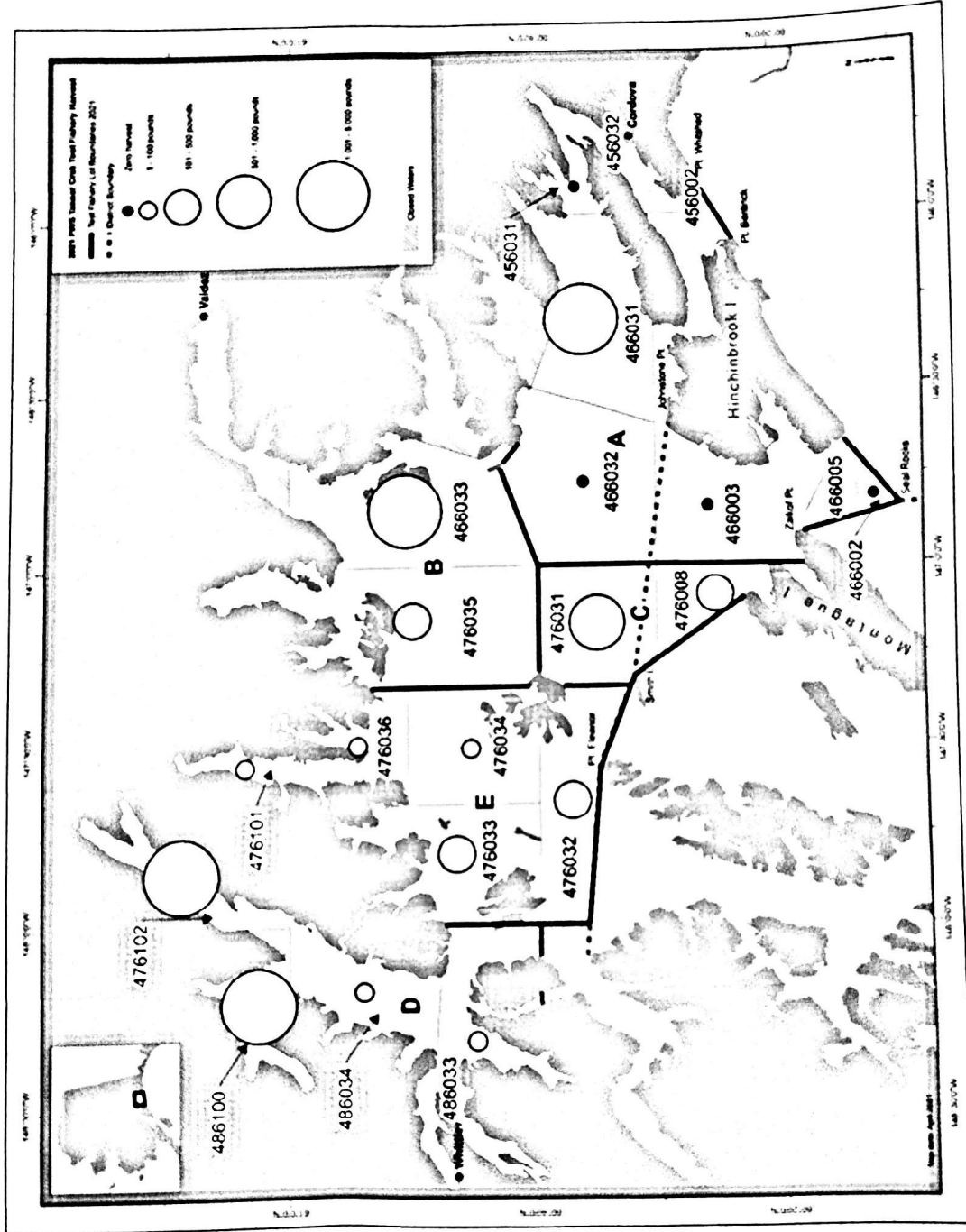


Figure 9.—Prince William Sound Tanner crab test fishery harvest by statistical area, shown by graduated symbols, 2021.

Table 8.—Prince William Sound Tanner crab test fishery harvest and effort information, 2020.

| Lot    | Pot lifts | Harvest<br>(No. of crab) | Harvest (lb) | CPUE<br>(crab per pot) |
|--------|-----------|--------------------------|--------------|------------------------|
| A      | 114       | 2,616                    | 5,120        | 22.9                   |
| B      | 58        | 593                      | 1,029        | 10.2                   |
| C      | 135       | 2,711                    | 4,762        | 20.1                   |
| D      | 188       | 3,103                    | 5,827        | 16.5                   |
| E      | 144       | 848                      | 1,590        | 5.9                    |
| F      | 157       | 3,046                    | 5,443        | 19.4                   |
| Totals | 796       | 12,917                   | 23,771       | 16.2                   |

Note: CPUE is catch per unit effort.

Table 9.—Prince William Sound Tanner crab test fishery harvest and effort information, 2021.

| Lot    | Pot lifts | Harvest<br>(No. of crab) | Harvest (lb) | CPUE<br>(crab per pot) |
|--------|-----------|--------------------------|--------------|------------------------|
| A      | 135       | 2,167                    | 4,139        | 16.1                   |
| B      | 136       | 2,808                    | 5,216        | 20.6                   |
| C      | 82        | 536                      | 977          | 6.5                    |
| D      | 151       | 2,684                    | 5,218        | 17.8                   |
| E      | 48        | 173                      | 360          | 3.6                    |
| Totals | 552       | 8,368                    | 15,910       | 15.2                   |

Note: CPUE is catch per unit effort.

Table 10.—Prince William Sound Tanner crab test fishery, number of harvested crab sampled, average weight, and percentage of each shell condition category, 2020–2021.

| Year | No. crab<br>sampled | Average weight<br>(lb) | Percent new<br>shell | Percent old shell | Percent very old<br>shell |
|------|---------------------|------------------------|----------------------|-------------------|---------------------------|
| 2020 | 500                 | 1.84                   | 45%                  | 54%               | 1%                        |
| 2021 | 3,255               | 1.90                   | 55%                  | 44%               | 1%                        |

Table 11.—Prince William Sound Tanner crab test fishery sampled by sex, and percentage of each shell condition category for sublegal male crab sampled, from onboard observers, 2020–2021.

| Year | Total crab<br>sampled | No. female<br>crab sampled | No. male crab<br>sampled | Percent<br>sublegal male<br>crab | Percent<br>sublegal male<br>new shell | Percent<br>sublegal male<br>old shell | Percent<br>sublegal male<br>very old shell |
|------|-----------------------|----------------------------|--------------------------|----------------------------------|---------------------------------------|---------------------------------------|--|
| 2020 | 1,937                 | 6                          | 1,931                    | 35%                              | 77%                                   | 20%                                   | 3%   |
| 2021 | 3,852                 | 9                          | 3,843                    | 15%                              | 79%                                   | 20%                                   | 1%   |

Note: All of the catch was sampled, including discarded female and sublegal male crab.



2020 and 2021 abundance estimates for new proposed crab districts:

legal males vs  $T_h$  males

2020 - Central District

| Group                       | Catch (n=) | Abundance est. |
|-----------------------------|------------|----------------|
| Historical legal-size males | 7          | 8,187          |
| Legal-size males            | 30         | 35,914         |

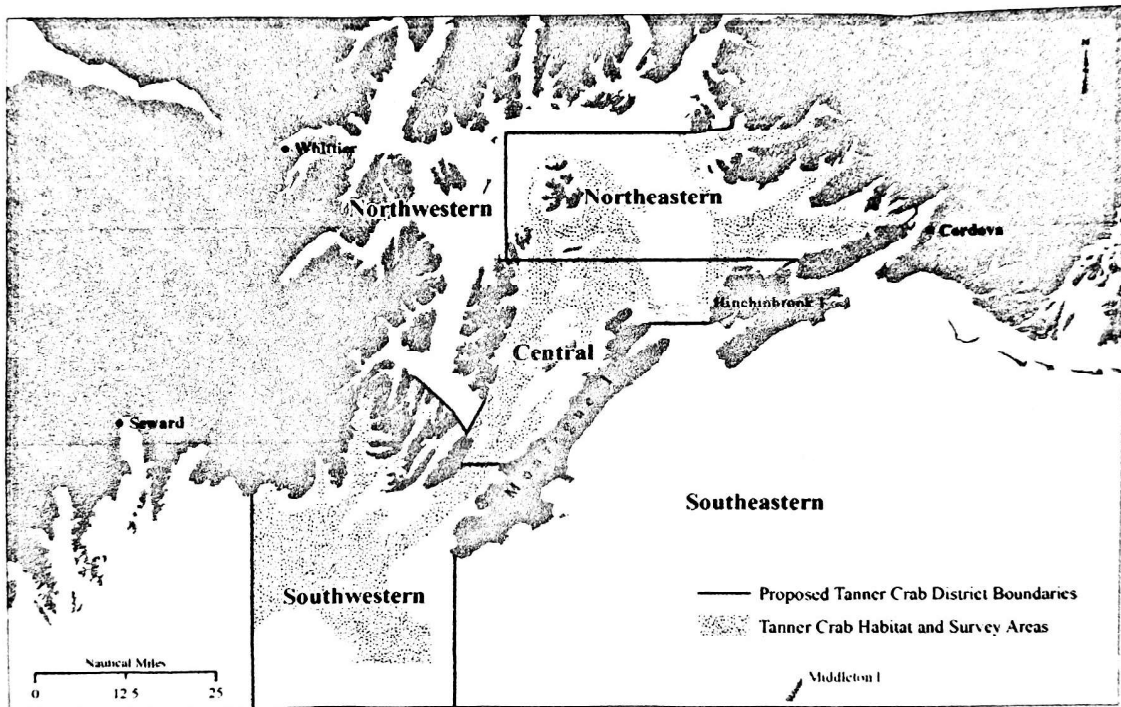
$30 \div 7 = 4.2$

5.3 x average

2021 - Southwestern District

| Group                       | Catch (n=) | Abundance est. |
|-----------------------------|------------|----------------|
| Historical legal-size males | 4          | 6,242          |
| Legal-size males            | 26         | 40,289         |

$26 \div 4 = 6.5$



2020 & 2021 are the only years legal males were counted in the survey before being discarded from this unfortunately limited data set we can see that in 2020 TL was 4.2 times higher than  $T_h$  and in 2021 TL was 6.5 times higher than  $T_h$ . If we average this out we get

$(T_h \times 5.3 = TL)$