1. **Chela height**: measure *C. opilio* chela height to the nearest 0.1 mm to allow for an accurate determination of morphometrically mature males. This data is required by stock assessment authors and has been requested by the Crab Plan Team, NPFMC.

11. Additional data to be collected on selected crab will be recorded on the CDF. **ALL Chela Height and Size/Wt Data recorded on the CDF will be entered at sea into a spreadsheet provided for each vessel** (2013 Crab Data\_<vesselname>.xls)**.**

1. Chela heights of *C. opilio* (**Snow crab**).Measure the right chela of males with both chelae intact and record carapace width and chela height to 0.1 mm along with vessel, cruise, haul and date on the Crab Data Forms provided.

Two separate tally sheets per boat are provided to keep track of the number of measurements made, one for southern collections (Rows A-K and Z), and one for northern collections (Rows L-V).  These tally sheets are located in the Kodiak Lab crab size-weight binder. To ensure small, medium and large crab are sampled through the survey, **for each haul, measure 5 crab from each of the 3 size categories 1) < 55 mm CW, 2) 55-94 mm CW and 3) >94 mm CW for a total of 15 crab.** It is likely that all sizes will not be caught in each haul so less than 15 crab will be measured for many hauls. Each of the 3 larger size categories above are further broken into 10 mm size bins (except for the smallest and largest size bins are larger). For each location, the goal is to sample a minimum of 20 crab per 10 mm size bin per boat.

Enter the data on the forms into the crab data spreadsheet (2013 Crab Data\_<vesselname>.xls). Bring the completed forms along with the spreadsheet file on the thumb drive back to Kodiak at the end of each leg.

**Size bins CW mm Minimum sampling goal per boat per location**

<35 mm 20

35-44 20

45-54 20

55-64 20

65-74 20

75-84 20

85-94 20

95-104 20

105-114 20

115-124 20

125-134 20

>135 20

**Aldebaran Snow Crab Chela Measurements Tally Sheet**

**Southern Locations: Rows A-K and Z**

|  |  |
| --- | --- |
| **Size Bins CW mm** | **Minimum sampling goal is 20 per boat per location** |
| **<35** |  |
| **35-44** |  |
| **45-54** |  |
| **55-64** |  |
| **65-74** |  |
| **75-84** |  |
| **85-94** |  |
| **95-104** |  |
| **105-114** |  |
| **115-124** |  |
| **125-134** |  |
| **>135** |  |

**Alaska Knight Snow Crab Chela Measurements Tally Sheet**

**Southern Locations: Rows A-K and Z**

|  |  |
| --- | --- |
| **Size Bins CW mm** | **Minimum sampling goal is 20 per boat per location** |
| **<35** |  |
| **35-44** |  |
| **45-54** |  |
| **55-64** |  |
| **65-74** |  |
| **75-84** |  |
| **85-94** |  |
| **95-104** |  |
| **105-114** |  |
| **115-124** |  |
| **125-134** |  |
| **>135** |  |

**Aldebaran Snow Crab Chela Measurements Tally Sheet**

**Northern Locations: Rows L-V**

|  |  |
| --- | --- |
| **Size Bins CW mm** | **Minimum sampling goal is 20 per boat per location** |
| **<35** |  |
| **35-44** |  |
| **45-54** |  |
| **55-64** |  |
| **65-74** |  |
| **75-84** |  |
| **85-94** |  |
| **95-104** |  |
| **105-114** |  |
| **115-124** |  |
| **125-134** |  |
| **>135** |  |

**Alaska Knight Snow Crab Chela Measurements Tally Sheet**

**Northern Locations: Rows L-V**

|  |  |
| --- | --- |
| **Size Bins CW mm** | **Minimum sampling goal is 20 per boat per location** |
| **<35** |  |
| **35-44** |  |
| **45-54** |  |
| **55-64** |  |
| **65-74** |  |
| **75-84** |  |
| **85-94** |  |
| **95-104** |  |
| **105-114** |  |
| **115-124** |  |
| **125-134** |  |
| **>135** |  |

9. **Individual crab weight**: Individual weight and carapace length or width data will be collected from red king crab (*Paralithodes camtschaticus*), blue king crab (*P. platypus*), Tanner crab (*Chionoecetes bairdi*) and snow crab (*C. opilio*) caught on the EBS survey. Weight and carapace length data for all blue king crab should be collected every year. Weight and carapace length or width data will be collected on red king crab and snow crab in odd years and Tanner crab data will be collected in even years.

B. Individual crab weights. Collect data from whole, live crab for these measurements; no crab regenerating or missing limbs. Please keep in mind that consistent caliper use and taring of the specimen scale after each weight are important factors towards obtaining a data set of accurate measurements. Please record vessel code, cruise, station and date on the Crab Data Forms as well as species, sex, shell condition, clutch size code (0-6), weight ± 2.0 g using the Marel specimen scale and carapace measurements\* (0.1 mm) from individual whole crab collected at each station detailed below for each vessel and leg of the survey.

\*Carapace length measurements from red king crab and blue king crab and carapace width measurements from tanner crab and snow crab.

**For each haul collected data on 5 crab per each of the following categories: 1) male red king crab, 2) ovigerous red king crab, 3) nonovigerous red king crab, 4) male snow crab, 5) ovigerous snow crab, 6) nonovigerous snow crab. Also, collected data for all blue king crab encountered that meet the sampling requirements (whole, live crab without regenerating limbs).**

Collect weights from entire size ranges throughout the distribution of each species. Although there is no set number per size bin, a tally sheet for each boat is provided for red king and snow crab to show which sizes are under-represented and need to be collected.

**Enter the data on the forms into the crab data spreadsheet, (2013 Crab Data\_<vesselname>.xls)**.Bring the completed forms along with the spreadsheet file on the thumb drive back to Kodiak at the end of each leg.

**Alaska Knight Red King Crab Weight Tally Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male size bins CL mm** | **# collected** | **Ovigerous size bins CL mm** | **# collected** | **Nonovigerous size bins CL mm** | **# collected** |
| **<65** |  | **<95** |  | **<45** |  |
| **65-74** |  | **95-104** |  | **45-54** |  |
| **75-84** |  | **105-114** |  | **55-64** |  |
| **85-94** |  | **115-124** |  | **65-74** |  |
| **95-104** |  | **125-134** |  | **75-84** |  |
| **105-114** |  | **135-144** |  | **85-94** |  |
| **115-124** |  | **> 145** |  | **95-104** |  |
| **125-134** |  |  |  | **105-114** |  |
| **135-144** |  |  |  | **115-124** |  |
| **145-154** |  |  |  | **125-134** |  |
| **155-164** |  |  |  | **135-144** |  |
| **165-174** |  |  |  | **> 145** |  |
| **> 175** |  |  |  |  |  |

**Aldebaran Red King Crab Weight Tally Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male size bins CL mm** | **# collected** | **Ovigerous size bins CL mm** | **# collected** | **Nonovigerous size bins CL mm** | **# collected** |
| **<65** |  | **<95** |  | **<45** |  |
| **65-74** |  | **95-104** |  | **45-54** |  |
| **75-84** |  | **105-114** |  | **55-64** |  |
| **85-94** |  | **115-124** |  | **65-74** |  |
| **95-104** |  | **125-134** |  | **75-84** |  |
| **105-114** |  | **135-144** |  | **85-94** |  |
| **115-124** |  | **> 145** |  | **95-104** |  |
| **125-134** |  |  |  | **105-114** |  |
| **135-144** |  |  |  | **115-124** |  |
| **145-154** |  |  |  | **125-134** |  |
| **155-164** |  |  |  | **135-144** |  |
| **165-174** |  |  |  | **> 145** |  |
| **> 175** |  |  |  |  |  |

**Alaska Knight Snow Crab Weight Tally Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male size bins CW mm** | **# collected** | **Ovigerous size bins CW mm** | **# collected** | **Nonovigerous size bins CW mm** | **# collected** |
| **<25** |  | **<45** |  | **<35** |  |
| **25-34** |  | **45-54** |  | **35-44** |  |
| **35-44** |  | **55-64** |  | **45-54** |  |
| **45-54** |  | **65-74** |  | **55-64** |  |
| **55-64** |  | **> 75** |  | **> 65** |  |
| **65-74** |  |  |  |  |  |
| **75-84** |  |  |  |  |  |
| **85-94** |  |  |  |  |  |
| **95-104** |  |  |  |  |  |
| **105-114** |  |  |  |  |  |
| **115-124** |  |  |  |  |  |
| **> 125** |  |  |  |  |  |

**Aldebaran Snow Crab Weight Tally Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male size bins CW mm** | **# collected** | **Ovigerous size bins CW mm** | **# collected** | **Nonovigerous size bins CW mm** | **# collected** |
| **<25** |  | **<45** |  | **<35** |  |
| **25-34** |  | **45-54** |  | **35-44** |  |
| **35-44** |  | **55-64** |  | **45-54** |  |
| **45-54** |  | **65-74** |  | **55-64** |  |
| **55-64** |  | **> 75** |  | **> 65** |  |
| **65-74** |  |  |  |  |  |
| **75-84** |  |  |  |  |  |
| **85-94** |  |  |  |  |  |
| **95-104** |  |  |  |  |  |
| **105-114** |  |  |  |  |  |
| **115-124** |  |  |  |  |  |
| **> 125** |  |  |  |  |  |