PROBES information

The data came from the PROBES MOCNESS Zooplankton data report files. File names were zoop.1980.txt and zoop.1981.txt.

The following are notes kept in the process of loading the data to an ACCESS data base. The data were put in the ACCESS data base to facilitate querying the data by species, location or year.

These ACCESS data sets were generated by reading the data from the ascii files zoop.1980.txt and zoop.1981.txt using the software D:\Bering Retrospective\Data Code\SeabirdRetrospective.vbp with the PROBES_form module. The 1980 data ran OK with the software, but the 1981 data had duplicate depths in the Tow Depth Interval" string.

The software cannot tell if the current net from the source file is the first or second occurrence of the duplicate depth in the depth interval string. Based on the use of a hyphen, it is assumed that the net went from the depth listed in as "Depth" in the third line of the header to the next depth in the "Tow Depth Interval" string. Therefore the tow minimum depth is taken as the next depth in the string if the depths are separated by a hyphen. If the depths are not separated by a hyphen, it is assumed that the net was fished horizontally at the depth listed in the Tow Depth Interval" string so the minimum depth is the same as the maximum depth in the ACCESS header file. Since the software cannot tell if the current sample it is reading is from the first or second occurrence of a duplicate depth, it will automatically write the next lower depth value following the first occurrence of the duplicate depth into the minimum depth column of the ACCESS header table. It also writes station number and "Tow Depth Interval" string for all tows with duplicate depths. The user must therefore go back though the ACCESS tow header file and change the minimum depth for the second occurrence of a duplicate depth value to the same value. Almost all such occurrences were for the 60 m depth value.

NOTE that we do not know for sure if the depth values followed by a comma in the "Tow Depth Interval" string were actually fished at a constant depth. It is assumed that if they were fished through a depth interval, then a hyphen would appear following the depth with a second number indicating the depth that the net was closed. Note that the file states that the “Depth given is the maximum tow depth of the net”. For example, the first tow in file zoop.1980.txt lists tow depth intervals of 120-80-60-40-20-10-0. Depth is given as 120.0. It is therefore assumed that the first net fished from 120 to 80 m.

The mesh for all nets was 149 μm. The files did not have the volume fished. The output files list the abundance units as numbers per 10 $m^3$. The abundance numbers in the original file are all integers. There is no biomass listed in the files.

The tows and nets within each tow were number sequentially for the purpose of linking data in the ACCESS header file with data in the ACCESS zooplankton file. The tows and nets were not numbered in the original source data. It was assumed that nets having the same header information (Station, Date, Time, Latitude, Longitude) came from the same tow. The nets were numbered sequentially as they

occurred for each tow in the original data file. If the time varied but the position data did not, it was assumed that the net came from an additional tow at that location, so the tow number was incremented.

The taxonomic designation in the designations for the species came from Integrated Taxonomic Information System (www.itis.gov). The NODC code was assigned to each species based on the NODC codes in the publication: National Oceanographic Data Center Taxonomic Codes, Volume 1: numerical (code order) listing, US Dept of Commerce, NOAA, Washington DC, 1984. The NODC code was used in the ACCESS database to facilitate sorting by taxonomic hierarchy. The output data in the csv files were taken from the ACCESS data base. The column headings occur at the top of each csv file. Each line (record) in the csv file includes the header information (cruise taken at the source data file name, the station, sample date-time, latitude in degrees north, longitude with the negative sign indicating degrees west, the bottom depth = sonic depth in meters, ACCESS tow and net numbers; the maximum net depth and minimum net depth in m, determined as outlined above) followed by the taxonomic information: the entered name which is the name in the source file; the taxon name which is the genus and species from ITIS; the stage, where N/A indicates no stage, c followed by a number indicates copepodid stage, AF and AM are assumed to mean adult female and adult male respectively, AFM is assumed to mean adult female and male, Cop is assumed to mean undetermined copepodid stage, the remaining stages are spelled out; the abundance is in numbers per 10 $m^3$, as indicated in the source file; the rank and cumulative percentages are unchanged from the source file, the taxonomic hierarchy as determined from ITIS. Note that entered names such as “Other Zooplankton” do not have a taxonomic designation or NODC code.