Brief Summary of the Northeast Skate Complex

The GAP passed the following motion at the October 4, 2012 meeting that included increased fishing mortality on elasmobranchs that includes dogfish and skates in our waters.

> **Motion**: To set as groundfish priorities items 1, 4 and 5 and allocation of SNEMA winter flounder to sectors, allocate groundfish bycatch by the scallop fleet by a fixed percentage for all stocks and allocate a fixed percentage of groundfish stocks in state waters, fix the industry share of observer costs to a percentage of the total or a specific dollar amount and find a legal way to kill more elasmobranchs, revise the SNEMA winter flounder reference points to reflect recent productivity of the stock and to split Amendment 18 to prioritize an action to address accumulation caps by limiting the number of permits that an individual can own. (Ms. Raymond/Mr. Brown).

The Northeast Skate Complex has a fishery management plan that governs seven skate species: thorny, smooth, barndoor, winter, little, clearnose and rosette skate. Because catch is largely reported as unidentified skates and difficulties with species identification, the FMP has an ABC set for the complex implemented in Amendment 3. Amendment 3 also reduced the skate wing possession limit from 20,000 to 5,000 lbs. of skate wings, established a 20,000 lbs. whole skate bait limit for vessels with a skate bait letter of authorization and allocated skate bait quota to three seasons proportionally to historical landings. Based on maximum size of the skate species, species abundance, management regulations and geographic distribution of effort, the skate wing fishery is dominated by winter skate and the skate bait fishery is dominated by little skate with a smaller component of juvenile winter skate.

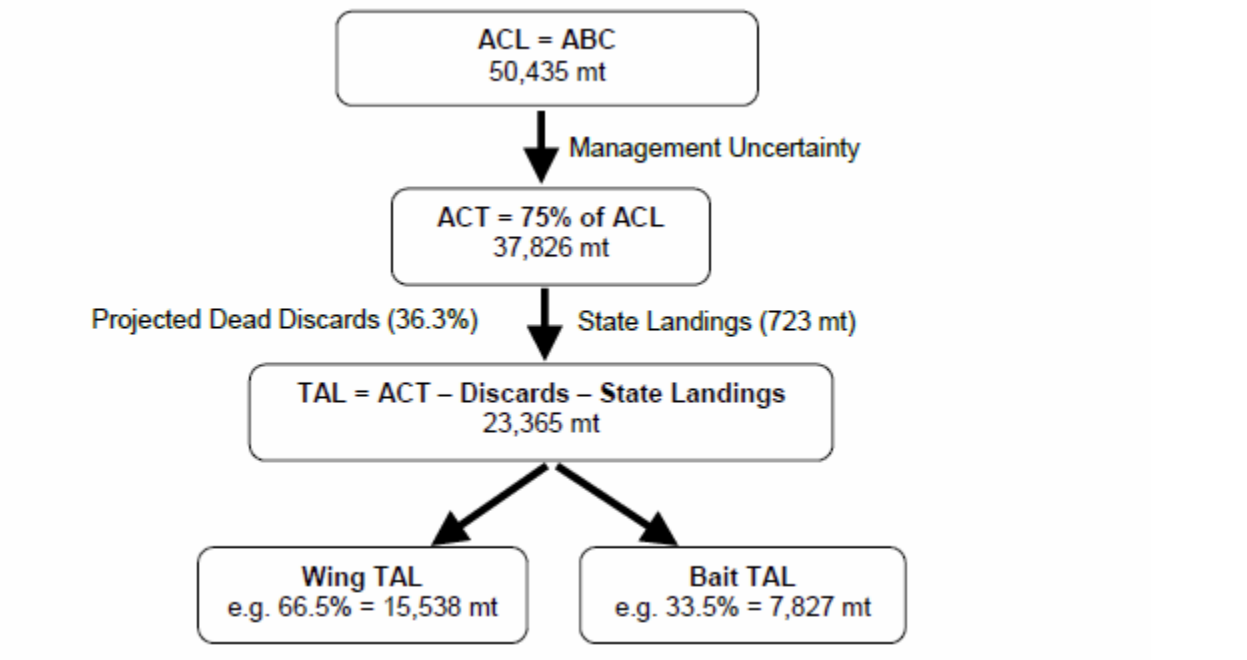

Figure 1: Schematic of proposed skate specifications for FY 2012 and FY 2013.

The stock assessment uses NEFSC trawl survey indices to determine status of the fishery. A large portion of the catch is still reported as unknown skate; species specific catch data are not available.

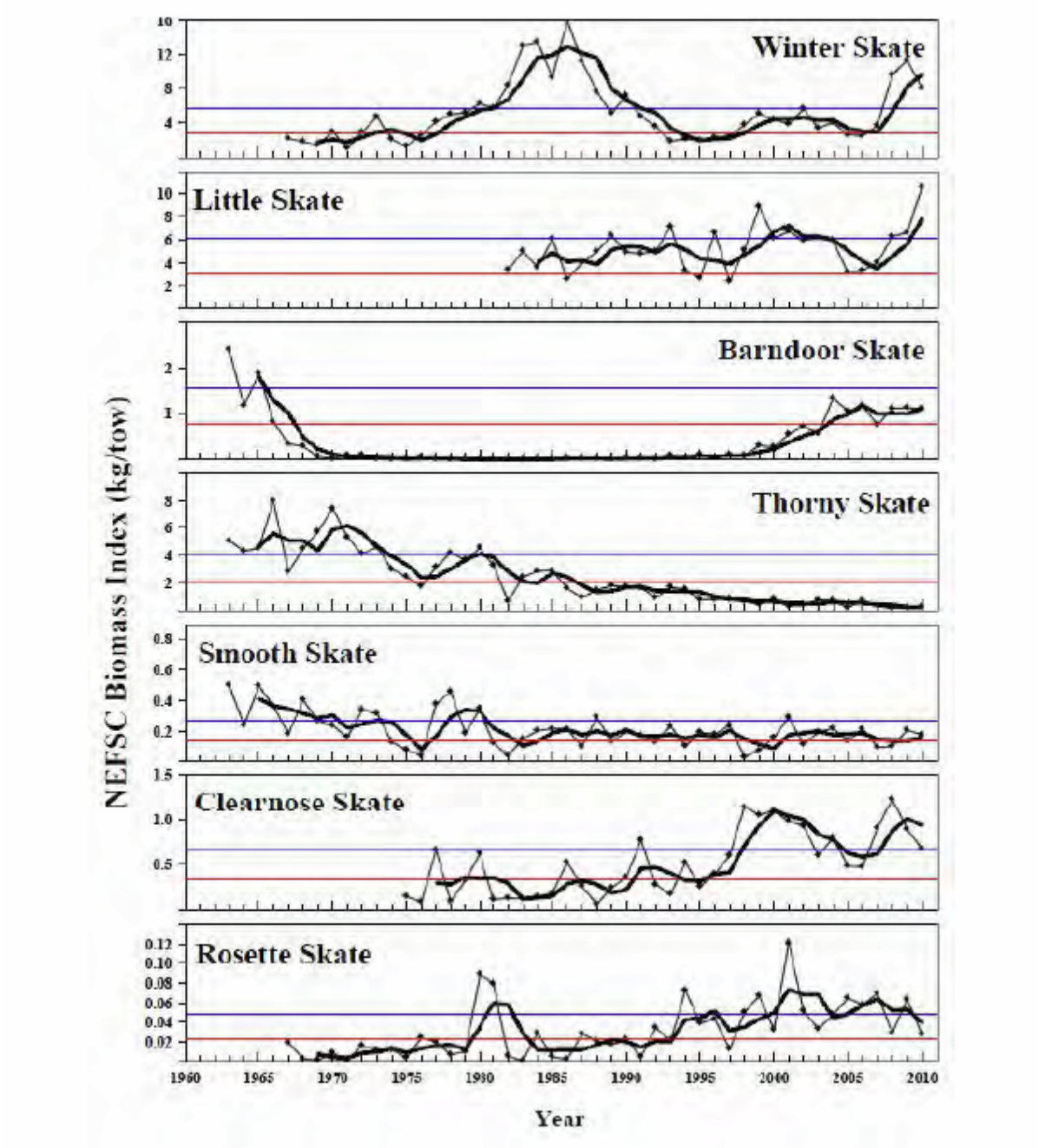

Figure 2: NEFSC survey biomass indices (stratified mean kg/tow in consistent survey strata) for seven managed skates, calibrated to RV Albatross units for data collected by the new FSV *Henry B. Bigelow* research vessel. Thin lines with symbols are annual indices, thick lines are three-year moving averages, and the thin horizontal lines are the minimum biomass thresholds that define an overfished status and biomass targets (MSY proxies).

The most recent specs package updated the assumed discard rate for little (20%) and winter (12%) skates captured by trawl vessels. Amendment 3 assumed a 50% discard mortality assumption for all skate species and gears based on published research on skate species in other regions (Stobutski et al. 2002, Laptikhovsky 2004 and Benoit 2006). Benoit (2006) estimated the discard mortality of winter skate in on Canadian trawl survey vessels to be at least 50%.

In 2011, a petition was put forward by WildEarth Guardians and Friends of Animals to list thorny, barndoor, winter and smooth skate as endangered. NERO found that there was insufficient scientific information to initiate a review of the four species at that time.

In the most recent available specifications package that used survey data through 2010, winter, little and clearnose skate are above the target biomass. Rosette skate is below the target but above the threshold, the same applies to barndoor skate, which is rebuilding. Smooth skate is slightly above the threshold; thorny skate is below the threshold and is overfished. Overfishing is not occurring on any stock.

The Skate PDT has recommended the continued prohibition on barndoor skate landings for a number of reasons: their life history strategy (slow growing, low fecundity, late maturing, long-lived) that makes them vulnerable to fishing pressure and the leveling off of biomass indices seen in recent years. "Despite significant increases in biomass, barndoor skate have not yet met the biomass target and therefore are not considered fully rebuilt. The accuracy of the Bmsy proxy (biomass target) is also uncertain, being chosen during a period of very low stock biomass based on a few years of survey data when survey catches were higher. Since the 1990s, barndoor skate biomass has increased and more biological information could be analyzed. The Skate PDT recommended that the Council not consider allowing barndoor skate retention and landing until either the stock is fully rebuilt or a formal barndoor skate stock assessment which would re-evaluate MSY proxies can be completed. This re-analysis might also affect the established rebuilding timeline for barndoor skate." (2012 – 2013 specifications for the Skate Complex). Barndoor have been in a rebuilding plan since 2003 and was estimated to rebuild by 2024 based on little biological data; it would not meet a ten year deadline. An assessment could revisit the rebuilding timeline in addition to the years of the survey that the reference points are based on.

The initial FMP established the relevant survey years to be considered in setting the reference points. The Northeast Data Poor Stocks Working Group reviewed these years and decided to include more recent survey data for all skates except for barndoor (Table 3).

Species	Survey	Survey time period	Biomass threshold (kg.tow-1)	Biomass target (kg.tow-1)	Status
Winter	Autumn	1967-2007	2.80	5.60	Not overfished/ No overfishing
Little	Spring	1982-2008	3.51	7.03	Not overfished/ No

					overfishing
Barndoor	Autumn	1963-1966	0.81	1.62	Not overfished/ No overfishing
Thorny	Autumn	1963-2007	2.06	4.12	Overfished/ No Overfishing
Smooth	Autumn	1963-2007	0.14	0.29	Not overfished/ No overfishing
Clearnose	Autumn	1963-2007	0.38	0.77	Not overfished/ No overfishing
Rosette	Autumn	1963-2007	0.024	0.048	Not overfished/No overfishing

Table 3. Reference points and associated survey time series established by the NDPSWG in 2008.

The same rebuilding strategy (landings prohibition) has been applied to thorny skate but they have not exhibited any increase in survey indices like barndoor skate. The two species have a similar geographic distribution (Figure 4) but do differ in life history characteristics. The PDT has not considered landing thorny skate because of its lack of rebuilding progress since 2003.

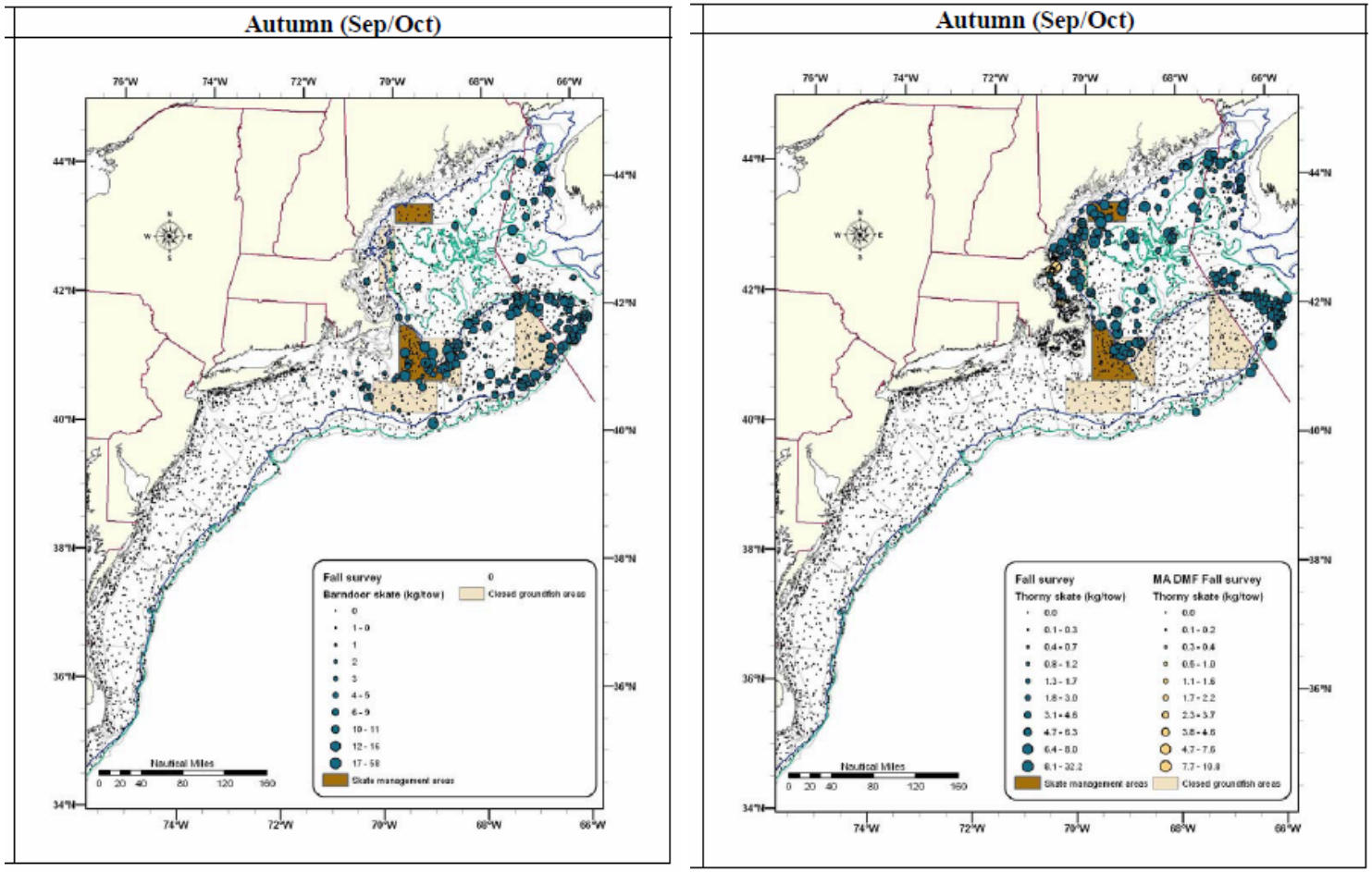

Figure 4. Autumn survey distribution of barndoor (left) and thorny (right) skates.