Mr. Richard B. Robins, Chairman
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

Dear Rick:

I would like to provide a few insights regarding the Mid-Atlantic Council’s Unmanaged Forage Omnibus Amendment. In particular, I would like to highlight the importance of small scombrids in the diets of tunas and billfishes in the Mid-Atlantic region.

For more than 25 years I have had the opportunity to investigate the stomach contents of large tunas and billfishes landed at Mid-Atlantic fishing tournaments. Small scombrid fishes represent the major dietary component of the tuna and billfishes that I have dissected, although in some years at some tournaments, various squid species have comprised the major food item. Based on field identifications of those scombrids that were relatively undigested, bullet and frigate tunas (Auxis rochei and A. thazard) are the dominant prey item(s), and chub mackerel (Scomber colias) also occurs in high frequency. In fact, just a few weeks ago at the 2016 Virginia Beach Tuna Tournament, the large tuna stomachs were full of chub mackerel. We have also morphologically identified small blackfin tuna (Thunnus atlanticus), skipjack tuna (Katsuwonus pelamis), and little tunny (Euthynnus alletteratus) in tuna and billfish stomach contents at Mid-Atlantic Tournaments.

I am not aware of any comprehensive food web analyses of pelagic fishes off the U.S. Mid-Atlantic coast. However, I have read or heard many anecdotal observations of colleagues that have investigated stomach contents at Mid-Atlantic offshore fishing tournaments, and their observations have been consistent with my mine. Often, it is difficult to identify a fish’s stomach contents based on morphological characters due to the state of digestion of the prey items. Melissa Paine, a former M.S. student in my lab, applied sequence analysis of the mitochondrial DNA cytochrome oxidase 1 (COI) gene region (now known as the DNA barcode) to identify western Atlantic scombrids (Paine et al. 2007. Bulletin of Marine Science 80:353-367). To demonstrate the efficacy of her technique, Melissa applied it to identify several “unidentifiable” (too small or too mangled to be identified) scombrid larvae from the Florida Straits as well as well digested stomach contents from marlin landed at the Mid-Atlantic Tournament in Cape May, NJ. Six of the eight “unknown” fish from billfish stomach contents were positively identified as bullet tuna.

I am currently serving my 11th consecutive two-year term as chair of the U.S. Advisory Committee to the International Commission for the Conservation of Atlantic Tunas (ICCAT). In the past the committee has charged me to write letters to federal management councils considering management measures for forage species, to emphasize the importance of forage species to the United States’ fisheries for Atlantic highly migratory species. It should be noted that the forage species not only provide the energetic basis that ultimately limits the “carrying capacity” of the higher trophic levels, but in sufficient numbers (and density), the forage species attract and hold those highly migratory species, making them available to our commercial and recreational fisheries.

The United States has worked tirelessly at ICCAT to conserve and rebuild tuna and billfish stocks, and U.S. fishers, both commercial and recreational, have made substantial sacrifices to promote
international conservation of these species. It is important that domestic management be mindful of these efforts and not compromise the forage basis upon which these fish rely.

Sincerely,

John E. Graves
Chancellor Professor of Marine Science
Chair, Department of Fisheries Science