## NEFMC Research Priorities and Data Needs, 2019-2023 - SKATES ONLY

	Title	Description, rationale, potential use	Priority	Status	FMP	Species	Broad categories	Cross-listing	Notes
11	Investigate age, growth, maturity, and fecundity of managed skate species.		Strategic (future needs)	underway	Skates		Population dynamics	assessment	
32	Evaluate the benefits of skate species-specific management.		Strategic (future needs)	unknown	Skates		Fisheries management	unknown	Recommended by the SSC.
33	Develop effective skate species identification methods for fishermen, dealers, and port samplers (e.g., inexpensive biochemical/genetic assay method, better training & morphological keys for juvenile skates and skate wings).	To improve data on species composition of landings and discards.	Strategic (future needs)	unknown	Skates	Skates	Fisheries management	assessment	
34	Investigate skate discards: discard mortality rates for any outstanding species and gear type; alternative methods of estimating dead discards in the specifications process, e.g. forecasting; and examining trends in magnitude of discards.	Discards affect TALs; recent estimates have fluctuated; incidental possession limits triggered in FY2016 & 2017; moving away from the assumed discard rate.	Important (near term)	underway	Skates	Skates	Fisheries management	assessment, RSA	2018 monkfish RSA project on reducing skate bycatch in monkfish gillnets.
54	Research the extent and composition of discards and bycatch in the skate and monkfish fisheries.		Strategic (future needs)	unknown	Skates, Monkfish	,	Fishery performance & monitoring	assessment	
	Investigate discard mortality rates by gear type, area, season, depth, and bottom type for all seven skate species with an emphasis on overfished species (thorny and smooth skates).	Improve data for specifications setting.	Important (near term)	unknown	Skates	Skates, Smooth skate, Thorny skate	Fishery performance & monitoring	unknown	
57	Identify gears and/or methods that would reduce bycatch and/or improve discard survival of unwanted catch, that may change the ratio of component catch species or improve size and species selectivity of gear for monkfish, herring and skates.		Important (near term)	underway	Monkfish, Atlantic herring, Skates	Monkfish, Atlantic herring, Skates	Bycatch	RSA	A 2013 S-K project on reducing sturgeon bycatch in monkfish gillnet.
82	Investigate the influence of physical factors (incl. environmental changes) on shifts in the range and distribution of skate species.	Could improve understanding of why thorny skate is not rebuilding.	Important (near term)	underway	Skates	Skates	Ecosystems	unknown	Can be combined with a broader issue under ecosystems research.
83	Examine trophic interactions between skate species and other bottom species that occupy the same habitats.		Strategic (future needs)	unknown	Skates	Skates	Ecosystems	unknown	Can be combined with a broader issue under ecosystems research.