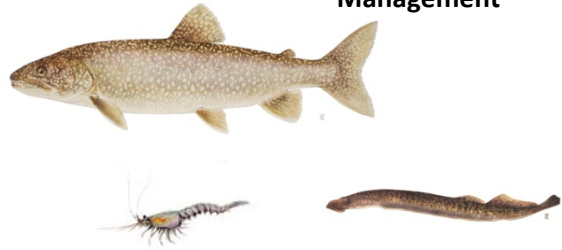




Energy Dynamics of Great Lakes Food Webs



Human Dimensions of Great Lakes Fishery Management

Physical Processes and Fish Recruitment in Large Lakes

Re-establishment of Native Deepwater Fishes



Council of Lake Committees



Fishery Research Program – Research Themes

This table highlights broad examples of intersections among research themes of the Great Lakes Fishery Commission’s Fishery Research Program. Each theme’s overarching goal is presented in a grey box. On the right, examples are given for intersections between each theme and topics of overarching importance to Great Lakes fishery research. Investigators are encouraged to use this table as inspiration and to consult the research theme papers (links below) to explore how their proposed research projects address one or more research themes.

Energy Dynamics of Great Lakes Food Webs	Human Dimensions	Physical Processes and Fish Recruitment in Large Lakes	Re-establishment of Native Deepwater Fishes	Council of Lake Committees	Non-Theme	Overarching areas of importance	
						Climate Change	Nearshore Habitats
<i>Quantifies energy and nutrient dynamics in Great Lakes food webs and the role of food web members in structuring resilient communities and ecosystems</i>	Socioeconomic value of ecosystem services (e.g., more resilient ecosystems)	Effects of physical processes on population success, predator/prey movements and interactions	Energetic and trophic pathways whose rehabilitation provides for resilient native, deepwater populations and communities	Predicting effects of non-native species on sustainable fishery benefits	The Fishery Research Program also funds relevant research that does not directly fit under one of the five themes	Predicting how changing climate scenarios will impact connections among food webs	Connections between nearshore and estuarine or offshore trophic pathways
	<i>Fills knowledge gaps in the areas of legal and institutional frameworks, management decision making, and stakeholder involvement in fisheries management</i>	Consequences of anthropogenic altering of physical processes	Stakeholder perceptions and management decisions about native deepwater fish restoration	Socioeconomic and cultural implications of Great Lakes fisheries management		Sociopolitical and economic implications of reactions to climate change; mitigation of impacts; stakeholder awareness	Stakeholder use of nearshore habitats and impacts of use on these habitats
		<i>Uses biophysical approaches to understand and predict fish recruitment in large-lake ecosystems</i>	Effects of abiotic factors on recruitment and population dynamics of native deepwater fishes	Physical processes resulting in food web changes and their implications for management		Effects of changing climate on lake hydrodynamics and thermal structure	Importance of nearshore areas for fish recruitment
			<i>Promotes understanding of biological processes regulating native deepwater fish populations and communities, and provides information for re-establishing species of concern</i>	Ecological obstacles to re-establishment of native fishes		Impacts of warming water on restoration success for native deepwater fishes	Importance of nearshore areas for various life stages of deepwater fishes
				<i>Identifies immediate information needs of the Great Lakes fishery management community</i>		Predicting effects of climate change on food webs	Importance of nearshore habitat to maintaining sustainable fisheries

Please visit the Great Lakes Fishery Commission website for additional resources: Research theme papers: <http://www.glfc.int/research/FRra.php>; Council of Lake Committees’ research priorities: <http://www.glfc.int/research/FRclc.php>; GLFC Strategic Vision: <http://www.glfc.int/pubs/SpecialPubs/StrategicVision2012.pdf>.