

Serial No. 1389Document No.93ANNUAL MEETING - JUNE 1964Synthetic vs. natural fiber materials in trawl nets used  
by the New England fishing industry

by

John B. Skerry and Ralph C. Levie  
Office of Resource Management, Gloucester, Massachusetts

The New England fishing industry, commencing in the early 1950's, gradually changed from nets made entirely of a natural fiber to nets made partially or entirely of a synthetic material. The use of synthetic parts (bellies, wings, squares and cod-ends) is pretty much dependent upon the type of fishing to be done.

One of the factors each vessel owner or captain must weigh is the cost of synthetic vs. natural net parts and the expected service each will give in its respective position in the trawl net. Boston trawlers, for example, fishing for haddock use synthetic net parts in the top of the net, but because of the type of bottom fished on, use natural fibers for the bottom parts of the net. Nearly all cod-ends, however, are made of a synthetic material. New Bedford vessels fishing for ground-fish and yellowtail flounder nearly all use nets made of a synthetic material. The Gloucester ocean perch fishermen, except for cod-end, use nets made entirely of natural fibers. An occasional top square and extension piece may be a synthetic material. Gloucester vessels engaged in the silver hake (whiting) fishery, however, use almost nothing but synthetic materials in their nets.

The following table gives by percentage the usage of natural and synthetic fibers in the various fisheries:

<u>Fishery</u>	<u>Ground- fish</u>	<u>Ocean Perch</u>	<u>Yellow- tail</u>	<u>Silver Hake</u>
Net parts-synthetic fiber	60%	55%	90%	90%
Net parts-natural fiber	40%	45%	10%	10%
Cod-ends - all fisheries				
Synthetic materials	80%			
Natural fibers	20%			

Order of Preference of Synthetics for trawl nets

1.	Nylon	65%
2.	Polypropylene	25%
3.	Terylene	5%
4.	Polyethylene	5%