

2.9. cont'd.(b) SIGNIFICANT COMPLETED PROJECTS

For present purposes an attempt has been made to classify projects in the terms requested -- namely "basic research", "applied research" and "development". In actual practice, however, FRB, being mission-oriented, conducts little "basic research" (i.e. a generalized search for knowledge without specific application in view). Emphasis has been placed on those achievements which had a fairly direct bearing on the fisheries. However, as members of the scientific community at large, FRB scientists have in many cases achieved international status as leaders in their chosen fields of science.

(i) Achievements in "basic" research(1) Contribution to general scientific knowledge.

The Journal of the FRB is today the largest journal of biological sciences in Canada and one of the world's leading publications in aquatic sciences.

(2) Physiology of salmon. Detailed understanding

of energy expenditures of migratory adult salmon, rates of sexual development and other phenomena have provided the basis for determining the biological consequences of installation of power dams, flood control dams and other obstacles.

(3) Salmon chemosensory studies. Demonstration of

repellents from predators (including man) and partial characterization of homestream water materials.

(4) Important text books. A number of FRB personnel

have received tribute for text books which are now in common use in educational institutions and in fisheries laboratories around the world. Recent books cover such topics as the fishes of the Atlantic coast of Canada, methodology in the study of primary production in the sea and methodology of assessing the dynamics of exploited fish populations.