

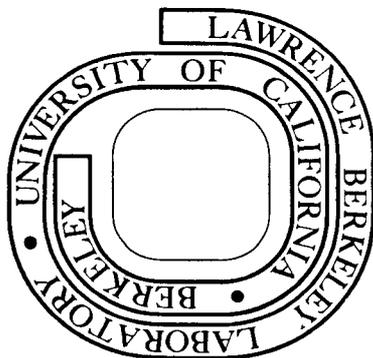
A SELECTED BIBLIOGRAPHY OF TUNA (SCOMBRIDAE)
FROM THE HAWAIIAN ISLANDS, A POTENTIAL OCEAN
THERMAL ENERGY CONVERSION AREA

Anthony T. Jones

September 1980

Prepared for the U.S. Department of Energy
under Contract W-7405-ENG-48

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A SELECTED BIBLIOGRAPHY OF TUNA (SCOMBRIDAE)
FROM THE HAWAIIAN ISLANDS, A POTENTIAL OCEAN
THERMAL ENERGY CONVERSION AREA.

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INTRODUCTION

The U.S. Department of Energy is conducting environmental studies at several proposed Ocean Thermal Energy Conversion (OTEC) sites to identify the potential impacts from commercial scale operation of ocean thermal power plants in tropical waters. The fishery resources at potential OTEC sites are being investigated at Lawrence Berkeley Laboratory. At this time, the two main efforts of the ichthyological survey are:

- o A literature survey of fish species occurring in the OTEC regions to establish their distribution, abundance and ecology.
- o A compilation and analysis of fishery data from OTEC regions to determine the sizes of fish stocks in the OTEC regions through time.

This bibliography provides a list of publications pertaining to the fishery and biology of tuna in Hawaiian waters. Since few papers have been published on tuna from the Hawaiian Ocean Thermal Energy Conversion sites and with the possibility of alternative sites in Hawaiian waters, a survey of the literature pertaining to the tuna from a region surrounding the Hawaiian Islands was undertaken. At present, two proposed sites, a site off the Island of Hawaii (HOTEC, 19°55'N, 156°25'W) and a site off the Island of Oahu (O'OTEC, 21°21'N, 158°12'W), are under investigation. Papers and conferences on the ecology, distribution, migration and abundance of tunas are listed as are articles discussing the tuna fishery, fishing methods, levels of fishing effort and catch records. Papers printed in conference proceedings dealing with this topic have not been sited individually, but are included in a section entitled "Conferences" which appears after the published reports.

Tuna were selected because of their economic and commercial importance to the State of Hawaii. At the OTEC sites, eight species of tuna are caught commercially (Table 1). Skipjack tuna (Katsuwonus pelamis) and yellowfin tuna (Neothunnus macropterus) are the two principal fisheries from the Kona Coast of the Island of Hawaii (HOTEC site). From the area off of Kahe Point on the Island of Oahu (O'OTEC site), Skipjack tuna, yellowfin tuna and bigeye tuna, (Parathunnus sibi) are the principal species landed. In recent years the landings of wahoo (Acanthocybium solandri) have been increasing from the fishing area which encompasses the HOTEC site, while landings of albacore (T. alalunga), little tuna (Euthynnus yaito), and wahoo have been increasing from the fishing area which encompasses the O'OTEC site. Bluefin tuna (Thunnus orientalis), albacore, bigeye (Parathunnus sibi), and Japanese mackerel (Scomber japonicus) are rarely landed from the HOTEC site.

Bluefin tuna and Japanese mackerel are rarely landed from the O'OTEC site. Catches of little tuna have decreased in recent years near the HOTEK site.

Table 1: List of commercially caught tuna in an area which encompasses the OTEC sites,

<u>Scientific name</u>	<u>Common name</u>	<u>Local name</u>
Katsuwonus pelamis	Skipjack tuna	Aku
Neothunnus macropterus	Yellowfin tuna	Ahi
Acanthocybium solandri	Wahoo	Ono
Euthynnus yaito	Little tuna	Kawakawa
Parathunnus sibi	Bigeye tuna	Ahi (Menpachi shibi)
Thunnus orientalis	Bluefin tuna	Ahi (Maguro)
T. alalunga	Albacore tuna	Ahipalaha (Tonbo)
Scomber japonicus	Japanese mackerel	Saba

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