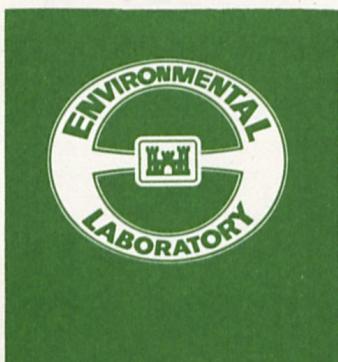


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**ENVIRONMENTAL IMPACT  
RESEARCH PROGRAM**

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**STATUS AND SOURCE OF HABITAT  
MODELS AND LITERATURE REVIEWS**  
**December 1984**

by

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20. ABSTRACT (Continued).

responsible for the development of the model or literature review, the stage of development of the document, and whether the document has received outside review or testing.

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## Preface

The work reported herein was performed under the Environmental Impact Research Program (EIRP), Work Unit 31729, sponsored by the Office, Chief of Engineers (OCE), US Army. Technical Monitors were Dr. John Bushman and Mr. Earl Eiker, OCE, and Mr. Dave Mathis, Water Resources Support Center.

This report outlines the availability of species habitat models and other habitat-related information. The status and sources of these documents are also noted.

This report was prepared by Dr. Thomas H. Roberts, Ms. L. Jean O'Neil, and Mr. William E. Jabour. Dr. James S. Wakeley computerized the information and assisted with the preparation of final drafts. Reviews were provided by Mr. Chester O. Martin, Team Leader, Wildlife Resources Team, Environmental Laboratory (EL), and Mr. James W. Teaford, EL. The work was performed under the supervision of Dr. Hanley K. Smith, Chief, Wetlands and Terrestrial Habitat Group; Dr. Conrad J. Kirby, Chief, Environmental Resources Division; and Dr. John Harrison, Chief, EL. Dr. Roger T. Saucier was Program Manager, EIRP.

COL Tilford C. Creel, CE, and COL Robert C. Lee, CE, were Commanders and Directors of WES during preparation of this report. Mr. F. R. Brown was Technical Director.

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STATUS AND SOURCE OF HABITAT MODELS AND LITERATURE REVIEWS

December 1984

Introduction

1. Development of species habitat models and literature reviews describing habitat requirements of wildlife and fish species has accelerated during recent years. To provide assistance in locating these materials, Tables 1-6 were compiled to identify species or groups of species for which models or other habitat-related information is available or currently under development.

2. Most of the models are Habitat Suitability Index (HSI) models that were developed for use in the US Fish and Wildlife Service (FWS) Habitat Evaluation Procedures (HEP). The literature reviews are derived from a variety of sources; reviews contained in HSI models are not listed separately. Literature reviews are included in this compilation since they serve as a base for model building.

3. Although many of the models or literature reviews have not been published, material still in draft form may be obtained for perusal or use. Models for species not listed may be available from the US Forest Service within their Wildlife and Fish Habitat Relationships System. To determine the availability of a given document, potential users should contact the appropriate agency and individual listed in Table 7.

Sources of Information

4. Sources of information for development of Tables 2-6 were the US Army Engineer Waterways Experiment Station, the FWS HEP Groups of the Western Energy and Land Use Team and the National Coastal Ecosystems Team, the US Forest Service, and the FWS Western Alaska Ecological Services. Tables 2-6 will be maintained on a microcomputer at the Waterways Experiment Station.

Table 1  
Status and Source of Habitat Models and Literature  
Reviews, December 1984

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The following tabulation is keyed to the entries in Tables 2-6.

\* Entries under the column headed "Special Status" are defined as follows:

- P - Endangered or threatened, and protected by the Endangered Species Act of 1973  
S - National Species of Special Emphasis (FWS), Federal Register, Vol 48, p 237  
B - Blue List (Audubon Society), American Birds, 1982, Vol 36, No. 2

Note: If a species has special status in any part of its range in the United States, it is so noted.

\*\* Entries under the columns "Literature Review Agency," "Modeling Agency," and "Testing Agency" are defined as follows:

- AFG - Alaska Department of Fish and Game  
AFW - Alaska offices, US Fish and Wildlife Service  
FS - US Forest Service  
NCT - National Coastal Ecosystems Team, US Fish and Wildlife Service  
NRP - National Reservoir Research Program, US Fish and Wildlife Service  
WES - Waterways Experiment Station, US Army Corps of Engineers  
WLT - Western Energy and Land Use Team, US Fish and Wildlife Service

† Entries under the columns "Literature Review Status" and "Model Status" are defined as follows:

- P - Preliminary  
I - Intermediate  
C - Complete  
CP - Complete and published

†† Entries under the column "External Review" are defined as follows:

- (X) - Reviewed by person(s) other than model developers, generally species authorities  
(-) - Not reviewed externally
-

Table 2  
List of HSI Models and Literature Reviews for Birds

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. REV. STATUS	MODEL AGENCY	MODEL STATUS	EXTERNAL TESTING REVIEW	TESTING AGENCY
American avocet	<i>Recurvirostra americana</i>	-	-	-	WLT	I	X	-
American black duck	<i>Anas rubripes</i>	S	-	-	NCT	CP	X	NCT
American kestrel	<i>Falco sparverius</i>	-	-	-	WLT	I	X	-
American wigeon	<i>Anas americana</i>	-	-	-	AFW	CP	-	-
American woodcock	<i>Scolopax minor</i>	S	-	-	WLT	P	-	-
Baird's sparrow	<i>Ammodramus bairdii</i>	-	-	-	WLT	CP	X	-
Bald eagle	<i>Haliaeetus leucocephalus</i>	P,S	-	-	AFW	CP	-	-
Barred owl	<i>Strix varia</i>	-	-	-	WLT	P	-	-
Belted kingfisher	<i>Ceryle alcyon</i>	-	-	-	WLT	P	X	-
Black brant	<i>Branta bernicla</i>	S	-	-	WLT	CP	X	-
Black-capped chickadee	<i>Parus atricapillus</i>	-	-	-	WLT	CP	X	-
Black-crowned night-heron	<i>Nycticorax nycticorax</i>	-	-	-	WLT	I	X	-
Black-shouldered kite	<i>Elanus caeruleus</i>	-	-	-	NCT	P	X	-
Blue grouse	<i>Dendragapus obscurus</i>	-	-	-	WLT, AFW	CP,C	X,-	-
Blue-winged teal	<i>Anas discors</i>	-	-	-	WLT	I	X	-
Brewer's sparrow	<i>Spizella breweri</i>	-	-	-	WLT	CP	X	-
Broad-winged hawk	<i>Buteo platypterus</i>	-	-	-	WLT	P	-	-
Brown pelican	<i>Pelecanus occidentalis</i>	P,S	-	-	NCT	P	-	-
Bufflehead	<i>Bucephala albeola</i>	-	-	-	AFW	CP	-	-
Canada goose	<i>Branta canadensis</i>	S	AFW	CP	-	-	-	-
Canvasback	<i>Aythya valisineria</i>	-	-	-	WLT	I	X	-
Carolina chickadee	<i>Parus carolinensis</i>	-	-	-	WLT	P	X	-
Clapper rail	<i>Rallus longirostris</i>	P,S	-	-	NCT	CP	X	NCT
Common redpoll	<i>Carduelis flammea</i>	-	-	-	AFW	CP	X	AFW
Common snipe	<i>Gallinago gallinago</i>	-	-	-	AFW	CP	-	-
Cooper's hawk	<i>Accipiter cooperii</i>	-	-	-	WLT	P	-	-
Double-crested cormorant	<i>Phalacrocorax auritus</i>	-	-	-	WLT	P	-	-
Downy woodpecker	<i>Picoides pubescens</i>	-	-	-	WLT	CP	X	-
Eastern bluebird	<i>Sialia sialis</i>	B	-	-	FS	C	-	FS
Eastern meadowlark	<i>Sturnella magna</i>	B	-	-	WLT	CP	X	WES
Ferruginous hawk	<i>Buteo regalis</i>	-	-	-	WLT	CP	X	WLT
Field sparrow	<i>Spizella pusilla</i>	-	-	-	WLT	CP	X	WES
Gadwall	<i>Anas strepera</i>	-	-	-	WLT	I	X	-
Gray partridge	<i>Perdix perdix</i>	-	-	-	WLT	I	X	-
Great blue heron	<i>Ardea herodias</i>	-	WLT	P	-	-	-	-
Great egret	<i>Casmerodius albus</i>	-	-	-	NCT	CP	X	-
Great horned owl	<i>Bubo virginianus</i>	-	-	-	WLT	P	-	-
Greater prairie chicken	<i>Tympanuchus cupido</i>	P	-	-	WLT	P	-	-
Greater white-fronted goose (winter)	<i>Anser albifrons</i>	S	-	-	NCT	I	-	-
Green-backed heron	<i>Butorides striatus</i>	-	-	-	WLT	P	-	-

(Continued)

(Sheet 1 of 3)

Table 2 (Continued)

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	REV. STATUS	LIT. AGENCY	REV. MODELING AGENCY	MODEL STATUS	EXTERNAL REVIEW	TESTING AGENCY
Green-winged teal	<i>Anas crecca</i>	-	-	-	AFW	CP	X	AFW	
Gyrfalcon	<i>Falco rusticolus</i>	-	AFW	CP	-	-	-	-	
Hairy woodpecker	<i>Picoides villosus</i>	B	-	-	WLT	I	X	WES	
Indigo bunting	<i>Passerina cyanea</i>	-	-	-	WLT	I	-	WES	
Lapland longspur	<i>Calcarius lapponicus</i>	-	-	-	AFW	CP	-	-	
Laughing gull	<i>Larus atricilla</i>	-	-	-	NCT	P	-	-	
Least tern	<i>Sterna antillarum</i>	P,S,B	-	-	WLT,NCT	I,P	X,-	-	
Lesser scaup (winter)	<i>Aythya affinis</i>	-	-	-	NCT	P	-	-	
Lewis' woodpecker	<i>Melanerpes lewis</i>	B	-	-	WLT	CP	-	-	
Marsh wren	<i>Cistothorus palustris</i>	-	-	-	WLT	P	-	-	
Mottled duck	<i>Anas fulvigula</i>	-	-	-	NCT	CP	X	-	
Mourning dove	<i>Zenaida macroura</i>	S	-	-	WLT	P	-	-	
Northern bobwhite	<i>Colinus virginianus</i>	-	-	-	WLT	I	X	WES	
Northern flicker	<i>Colaptes auratus</i>	-	-	-	WLT	P	-	-	
Northern goshawk	<i>Accipiter gentilis</i>	-	-	-	AFW	CP	-	-	
Northern pintail (winter)	<i>Anas acuta</i>	S	-	-	NCT	P	X	-	
Northern waterthrush	<i>Seiurus noveboracensis</i>	-	-	-	WLT	P	-	-	
Osprey	<i>Pandion haliaetus</i>	S	WES	P	-	-	-	-	
Peregrine falcon	<i>Falco peregrinus</i>	P,S	AFW	CP	-	-	-	-	
Pileated woodpecker	<i>Dryocopus pileatus</i>	-	-	-	WLT,FS	CP,C	X,-	FS	
Pine warbler	<i>Dendroica pinus</i>	-	-	-	WLT,FS	CP,C	X,-	WES,FS	
Prairie falcon	<i>Falco mexicanus</i>	-	-	-	WLT	I	X	WLT	
Prairie warbler	<i>Dendroica discolor</i>	-	-	-	FS	C	-	FS	
Red-cockaded woodpecker	<i>Picoides borealis</i>	P,S	FS	CP	FS	C	X	FS	
Red-tailed hawk	<i>Buteo jamaicensis</i>	-	-	-	WLT	P	X	-	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	-	-	-	WLT	P	-	-	
Redhead (winter)	<i>Aythya americana</i>	S	-	-	NCT	CP	X	-	
Ring-necked pheasant	<i>Phasianus colchicus</i>	-	-	-	WLT	P	-	-	
Roseate spoonbill	<i>Ajaia ajaja</i>	-	-	-	NCT	CP	X	-	
Ruffed grouse	<i>Bonasa umbellus</i>	-	WES	I	WLT	I	X	WLT	
Sage grouse	<i>Centrocercus urophasianus</i>	-	-	-	WLT	P	-	-	
Sandhill crane	<i>Grus canadensis</i>	P,S	-	-	WLT,AFW	P,CP	-,-	-	
Scissor-tailed flycatcher	<i>Tyrannus forficatus</i>	-	-	-	WLT	I	X	-	
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	-	-	-	WLT	I	X	-	
Snow goose (lesser) (winter)	<i>Chen caerulescens</i>	S	-	-	NCT	I	-	-	
Snowy plover	<i>Charadrius alexandrinus</i>	B	WES	I	-	-	-	-	
Spotted owl	<i>Strix occidentalis</i>	S,B	-	-	WLT,FS	P,C	-,-	FS	
Spruce grouse	<i>Dendragapus canadensis</i>	-	-	-	AFW	CP	X	AFW	
Trumpeter swan	<i>Cygnus buccinator</i>	S	-	-	AFW	CP	-	-	
Veery	<i>Catharus fuscenscens</i>	-	-	-	WLT	CP	X	-	

(Continued)

(Sheet 2 of 3)

Table 2 (Concluded)

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. REV. AGENCY	LIT. REV. STATUS	MODELING AGENCY	MODEL STATUS	EXTERNAL TESTING REVIEW	TESTING AGENCY
Western bluebird	<i>Sialia mexicana</i>	-	WLT	C	WLT	P	-	-
Western grebe	<i>Aechmophorus occidentalis</i>	B	-	-	WLT	CP	X	-
White ibis	<i>Eudocimus albus</i>	-	-	-	NCT	P	-	-
White-breasted nuthatch	<i>Sitta carolinensis</i>	-	-	-	WLT	P	-	-
Wild turkey	<i>Meleagris gallopavo</i>	-	-	-	WLT	P	-	-
Williamson's sapsucker	<i>Sphyrapicus thyroideus</i>	-	-	-	WLT	CP	X	-
Willow ptarmigan	<i>Lagopus lagopus</i>	-	-	-	AFW	CP	-	-
Wood duck	<i>Aix sponsa</i>	S	-	-	WLT/WES	CP	X	-
Wood thrush	<i>Hylocichla mustelina</i>	-	-	-	WLT	P	-	-
Yellow warbler	<i>Dendroica petechia</i>	B	-	-	WLT	CP	X	-
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	-	-	-	WLT	CP	X	-

Table 3  
List of HSI Models and Literature Reviews for Mammals

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. STATUS	REV. MODELING AGENCY	MODEL STATUS	EXTERNAL REVIEW	TESTING AGENCY
Arctic fox	<i>Alopex lagopus</i>	-	-	-	AFW	CP	-	-
Beaver	<i>Castor canadensis</i>	-	WES	P	WLT, AFW	CP, CP	X,-	AFW
Black bear	<i>Ursus americanus</i>	-	-	-	AFW	C	-	-
Black-tailed deer	<i>Odocoileus hemionus sitkensis</i>	-	-	-	AFW	CP	-	-
Caribou	<i>Rangifer tarandus</i>	-	-	-	AFW	CP	X	AFW
Cotton rat	<i>Sigmodon hispidus</i>	-	-	-	FS	C	-	-
Dall sheep	<i>Ovis dalli</i>	-	-	-	AFW	CP	-	-
Eastern cottontail	<i>Sylvilagus floridanus</i>	-	WES	I	WLT, FS	CP, C	X,-	-
Eastern woodrat	<i>Neotoma floridana</i>	-	WLT	C	-	-	-	-
Fisher	<i>Martes pennanti</i>	-	-	-	WLT	CP	X	-
Fox squirrel	<i>Sciurus niger</i>	-	-	-	WLT	CP	X	-
Gray squirrel	<i>Sciurus carolinensis</i>	-	WES	I	WLT	CP	X	WES
Gray wolf	<i>Canis lupus</i>	P,S	-	-	AFW	CP	-	-
Grizzly/brown bear	<i>Ursus arctos</i>	P,S	-	-	AFW	CP	-	-
Kit fox	<i>Vulpes macrotis</i>	P	-	-	WLT	P	-	-
Marsh rabbit	<i>Sylvilagus palustris</i>	-	-	-	FS	C	-	-
Meadow vole	<i>Microtus pennsylvanicus</i>	-	WLT	C	-	-	-	-
Mink	<i>Mustela vison</i>	-	-	-	WLT, AFW	CP, CP	X,X	AFW
Moose	<i>Alces alces</i>	-	-	-	WLT, AFW	P, CP	-, X	AFW
Mountain goat	<i>Oreamnos americanus</i>	-	-	-	AFW	C	-	-
Mule deer	<i>Odocoileus hemionus</i>	-	-	-	WLT	I	X	WLT
Muskrat	<i>Ondatra zibethicus</i>	-	WES	P	WLT, NCT	CP, C	X,X	NCT
Pine marten	<i>Martes americana</i>	-	-	-	WLT, FS, AFW	CP, C, CP	X,-,-	FS
Pronghorn	<i>Antilocapra americana</i>	-	-	-	WLT	CP	X	WLT
Raccoon	<i>Procyon lotor</i>	-	-	-	WLT	P	-	-
Red squirrel	<i>Tamiasciurus hudsonicus</i>	-	-	-	WLT, AFW	I, CP	-,-	-
River otter	<i>Lutra canadensis</i>	-	-	-	AFW	CP	-	-
Snowshoe hare	<i>Lepus americanus</i>	-	-	-	WLT, AFW	P, CP	-,-	-
Southern flying squirrel	<i>Glaucomys volans</i>	-	-	-	WLT	P	-	-
Southern red-backed vole	<i>Clethrionomys gapperi</i>	-	-	-	WLT	CP	X	-
White-footed mouse	<i>Peromyscus leucopus</i>	-	WLT	C	-	-	-	-
White-tailed deer	<i>Odocoileus virginianus</i>	-	-	-	WLT/WES	I	X	WES
Yellow-cheeked vole	<i>Microtus xanthognathus</i>	-	-	-	AFW	CP	-	-

Table 4  
List of HSI Models and Literature Reviews for Reptiles and Amphibians

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. REV. STATUS	MODELING AGENCY	MODEL STATUS	EXTERNAL REVIEW	TESTING AGENCY
American alligator	<i>Alligator mississippiensis</i>	S	-	-	NCT	P	-	-
Bullfrog	<i>Rana catesbeiana</i>	-	-	-	WLT	P	-	-
Diamondback terrapin	<i>Malaclemys terrapin</i>	-	-	-	NCT	P	-	-
Eastern box turtle	<i>Terrapene carolina</i>	-	-	-	WLT	P	-	-
Red-spotted newt	<i>Notophthalmus viridescens</i>	-	-	-	WLT	I	X	WLT
Snapping turtle	<i>Chelydra serpentina</i>	-	-	-	WLT	P	-	-
Wood frog	<i>Rana sylvatica</i>	-	-	-	WLT	P	-	-
Yellow-bellied racer	<i>Coluber constrictor</i>	-	-	-	WLT	P	-	-

Table 5  
List of HSI Models and Literature Reviews for Fishes

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. REV. STATUS	REV. AGENCY	MODELING AGENCY	MODEL STATUS	EXTERNAL TESTING REVIEW	TESTING AGENCY
Alewife	<i>Alosa pseudoharengus</i>	-	NCT/WES	CP	NCT	CP	X	-	-
All catfish		-	-	-	NRP	C	-	-	-
All fish		-	-	-	NRP	C	-	-	-
All minnows		-	-	-	NRP	C	-	-	-
All sunfish		-	-	-	NRP	C	-	-	-
All trout		-	-	-	NRP	C	-	-	-
American eel	<i>Anguilla rostrata</i>	-	NCT/WES	CP	-	-	-	-	-
American shad	<i>Alosa sapidissima</i>	-	NCT/WES	I	NCT	I	X	-	-
Angler harvest		-	-	-	WLT	CP	-	-	-
Arctic grayling	<i>Thymallus arcticus</i>	-	AFG	CP	WLT	P	X	-	-
Atlantic croaker	<i>Micropogon undulatus</i>	-	NCT/WES	CP	NCT	CP	X	-	-
Atlantic herring	<i>Clupea harengus</i>	-	NCT/WES	C	-	-	-	-	-
Atlantic menhaden	<i>Brevoortia tyrannus</i>	-	NCT/WES	CP	-	-	-	-	-
Atlantic salmon	<i>Salmo salar</i>	S	NCT/WES	CP	WLT	C	X	WLT	
Atlantic silversides	<i>Menidia menidia</i>	-	NCT/WES	CP	-	-	-	-	-
Atlantic sturgeon	<i>Acipenser oxyrinchus</i>	-	NCT/WES	CP	-	-	-	-	-
Bay anchovy	<i>Anchoa mitchilli</i>	-	NCT/WES	CP	-	-	-	-	-
Bigmouth buffalo	<i>Ictiobus cyprinellus</i>	-	-	-	WLT	CP	X	-	-
Black bullhead	<i>Ictalurus melas</i>	-	-	-	WLT	CP	X	WLT	
Black crappie	<i>Pomoxis nigromaculatus</i>	-	-	-	WLT,WLT,NRP	CP,CP,C	X,-,-	WLT	
Black drum	<i>Pogonias cromis</i>	-	NCT/WES	I	-	-	-	-	-
Blacknose dace	<i>Rhinichthys atratulus</i>	-	-	-	WLT	CP	X	WLT	
Blueback herring	<i>Alosa aestivalis</i>	-	NCT/WES	CP	NCT	CP	X	-	-
Bluefish	<i>Pomatomus saltatrix</i>	-	NCT/WES	C	-	-	-	-	-
Bluegill	<i>Lepomis macrochirus</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT,WES	
Broad whitefish	<i>Coregonus nasus</i>	-	AFG	CP	-	-	-	-	-
Brook trout	<i>Salvelinus fontinalis</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT	
Brown trout	<i>Salmo trutta</i>	-	-	-	WLT	CP	X	-	-
California grunion	<i>Leuresthes tenuis</i>	-	NCT/WES	C	-	-	-	-	-
California halibut	<i>Paralichthys californicus</i>	-	NCT/WES	I	-	-	-	-	-
Carp	<i>Cyprinus carpio</i>	-	-	-	WLT,WLT,NRP	CP,CP,C	X,-,-	WLT	
Catostomids		-	-	-	NRP	C	-	-	-
Channel catfish	<i>Ictalurus punctatus</i>	-	-	-	WLT	CP	X	WLT	
Chinook salmon	<i>Oncorhynchus tschawytscha</i>	S	NCT/WES	CP	-	-	-	-	-
Chum salmon	<i>Oncorhynchus keta</i>	-	AFG,NCT	CP,P	WLT,NCT,AFG	P,P,P	-,-,-	-	-
Clupeids		-	-	-	NRP	C	-	-	-
Coho salmon	<i>Oncorhynchus kisutch</i>	S	NCT/WES	I	WLT,NRP	CP,C	X,-	WLT	
Common shiner	<i>Notropis cornutus</i>	-	-	-	WLT	CP	X	WLT	
Creek chub	<i>Semotilus atromaculatus</i>	-	-	-	WLT	CP	X	-	-
Cutthroat trout	<i>Salmo clarki</i>	S	-	-	WLT,NRP	CP,C	X,-	WLT	

(Continued)

(Sheet 1 of 3)

Table 5 (Continued)

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. REV. STATUS	MODELING AGENCY	MODEL STATUS	EXTERNAL REVIEW	TESTING AGENCY
Cutthroat trout (sea run)	<i>Salmo clarki</i>	-	NCT/WES	P	NCT	P	-	-
Dolly varden	<i>Salvelinus malma</i>	-	AFG	CP	-	-	-	-
Fallfish	<i>Semotilus corporalis</i>	-	-	-	WLT	CP	X	WLT
Florida pompano	<i>Trachinotus carolinus</i>	-	NCT/WES	I	-	-	-	-
Freshwater drum	<i>Aplodinotus grunniens</i>	-	-	-	NRP	C	-	-
Gafftopsail catfish	<i>Bagre marinus</i>	-	NCT/WES	CP	-	-	-	-
Gizzard shad	<i>Dorosoma cepedianum</i>	-	-	-	WLT	P	-	-
Gray snapper	<i>Lutjanus griseus</i>	-	NCT/WES	I	-	-	-	-
Green sunfish	<i>Lepomis cyanellus</i>	-	-	-	WLT	CP	X	WLT
Groupers	<i>Epinephelus</i> spp.	-	NCT/WES	P	-	-	-	-
Gulf flounder	<i>Paralichthys albigutta</i>	-	-	-	NCT	I	-	-
Gulf menhaden	<i>Brevoortia patronus</i>	-	NCT/WES	CP	NCT	CP	X	-
Inland silversides	<i>Menidia beryllina</i>	-	-	-	NCT	P	-	-
King mackerel	<i>Scomberomorus cavalla</i>	-	NCT/WES	I	-	-	-	-
Kokanee	<i>Oncorhynchus nerka kennerlyi</i>	-	-	-	NRP	C	-	-
Lake trout	<i>Salvelinus namaycush</i>	S	WLT	C	NRP,WLT	C,CP	-,X	-
Lane snapper	<i>Lutjanus synagris</i>	-	NCT/WES	I	-	-	-	-
Largemouth bass	<i>Micropterus salmoides</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT,WES
Longnose dace	<i>Rhinichthys cataractae</i>	-	-	-	WLT	CP	X	-
Longnose sucker	<i>Catostomus catostomus</i>	-	-	-	WLT	CP	X	-
Lost river sucker	<i>Catostomus luxatus</i>	-	FS	C	FS	C	-	-
Modoc sucker	<i>Catostomus microps</i>	-	FS	C	FS	C	-	-
Mojave chub	<i>Gila mohavensis</i>	P	FS	C	FS	C	-	-
Muskellunge	<i>Esox masquinongy</i>	-	-	-	NRP	C	-	-
Mutton snapper	<i>Lutjanus analis</i>	-	NCT/WES	I	-	-	-	-
Northern anchovy	<i>Engraulis mordax</i>	-	NCT/WES	I	-	-	-	-
Northern hog sucker	<i>Hypentelium nigricans</i>	-	-	-	WLT	P	-	-
Northern pike	<i>Esox lucius</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT
Pacific lamprey	<i>Entosphenus tridentatus</i>	-	FS	I	FS	I	-	-
Paddlefish	<i>Polyodon spathula</i>	-	-	-	WLT	CP	X	-
Pinfish	<i>Lagodon rhomboides</i>	-	NCT/WES	C	-	-	-	-
Pink salmon	<i>Oncorhynchus gorbuscha</i>	-	AFG,NCT	CP,P	AFG	P	-	-
Rainbow smelt	<i>Osmerus mordax</i>	-	NCT/WES	I	-	-	-	-
Rainbow trout	<i>Salmo gairdneri</i>	-	-	-	WLT,WLT	CP,P	X,-	WLT
Red drum	<i>Sciaenops ocellata</i>	-	NCT/WES	C	NCT	CP	X	-
Red-ear sunfish	<i>Lepomis microlophus</i>	-	-	-	WLT	CP	X	-
Rock bass	<i>Ambloplites rupestris</i>	-	WLT	C	WLT	P	-	-
Rough sculpin	<i>Cottus asperrimus</i>	-	FS	C	FS	C	-	-
Round whitefish	<i>Prosopium cylindraceum</i>	-	AFG	CP	-	-	-	-
Sea catfish	<i>Arius felis</i>	-	NCT/WES	CP	-	-	-	-

(Continued)

(Sheet 2 of 3)

Table 5 (Concluded)

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	REV. STATUS	LIT. AGENCY	REV. MODELING	MODEL STATUS	EXTERNAL REVIEW	TESTING AGENCY
Sheepshead	<i>Archosargus probatocephalus</i>	-	NCT/WES	C	-	-	-	-	-
Slough darter	<i>Etheostoma gracile</i>	-	-	-	WLT	CP	X	-	-
Smallmouth bass	<i>Micropterus dolomieu</i>	-	-	-	WLT,NRP	CP,C	X,-	-	-
Smallmouth buffalo	<i>Ictiobus bubalus</i>	-	-	-	WLT	CP	X	-	-
Snook	<i>Centropomus undecimalis</i>	-	NCT,WES	CP	-	-	-	-	-
Southern flounder	<i>Paralichthys lethostigma</i>	-	NCT/WES	C	NCT	I	-	-	-
Southern kingfish	<i>Menticirrhus americanus</i>	-	-	-	NCT	CP	X	-	-
Spanish mackerel	<i>Scomberomorus maculatus</i>	-	NCT/WES	I	-	-	-	-	-
Sportfish		-	-	-	NRP	C	-	-	-
Spot	<i>Leiostomus xanthurus</i>	-	NCT/WES	P	NCT	CP	X	-	-
Spotted bass	<i>Micropterus punctulatus</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT	-
Spotted sea trout	<i>Cynoscion nebulosus</i>	-	NCT/WES	C	NCT	CP	X	-	-
Steelhead	<i>Salmo gairdneri</i>	S	NCT/WES	I	-	-	-	-	-
Striped anchovy	<i>Anchoa hepsetus</i>	-	NCT/WES	CP	-	-	-	-	-
Striped bass (coastal)	<i>Morone saxatilis</i>	S	NCT/WES	CP	NCT	CP	X	-	-
Striped bass (inland)	<i>Morone saxatilis</i>	S	-	-	WLT	CP	-	-	-
Striped killifish	<i>Fundulus majalis</i>	-	NCT/WES	P	-	-	-	-	-
Striped mullet	<i>Mugil cephalus</i>	-	NCT/WES	C	-	-	-	-	-
Summer flounder	<i>Paralichthys dentatus</i>	-	NCT/WES	CP	-	-	-	-	-
Three-spined stickleback	<i>Gasterosteus aculeatus</i>	-	AFG	CP	AFG	P	X	-	-
Walleye	<i>Stizostedion vitreum</i>	-	-	-	WLT,NRP(3)	CP,C,C,P	X,-,-,-	-	-
Warmouth sunfish	<i>Lepomis gulosus</i>	-	-	-	WLT	CP	X	WLT	-
White bass	<i>Morone chrysops</i>	-	WLT	C	WLT,NRP	C,P	X,-	-	-
White crappie	<i>Pomoxis annularis</i>	-	-	-	WLT,NRP	CP,C	X,-	WLT,WES	-
White mullet	<i>Mugil curema</i>	-	NCT/WES	C	-	-	-	-	-
White perch	<i>Morone americana</i>	-	NCT/WES	CP	-	-	-	-	-
White sucker	<i>Catostomus commersoni</i>	-	-	-	WLT,WLT	CP,P	-,X	-	-
Winter flounder	<i>Pseudopleuronectes americanus</i>	-	NCT/WES	I	-	-	-	-	-
Yellow perch	<i>Perca flavescens</i>	-	-	-	WLT,WLT,NRP	CP,P,C	-,X,-	-	-
Yellow-tailed snapper	<i>Ocyurus chrysurus</i>	-	NCT/WES	I	-	-	-	-	-

Table 6  
List of HSI Models and Literature Reviews for Molluscs and Crustaceans

COMMON NAME	SCIENTIFIC NAME	SPECIAL STATUS	LIT. AGENCY	LIT. REV. STATUS	MODEL AGENCY	EXTERNAL REVIEW	TESTING AGENCY
Abalone	<i>Haliotis</i> spp.	-	NCT/WES	C	-	-	-
American lobster	<i>Homarus americanus</i>	-	NCT/WES	C	-	-	-
American oyster	<i>Crassostrea virginica</i>	-	NCT/WES	CP	NCT	CP	X NCT
Amphipods	<i>Amphipoda</i>	-	NCT/WES	I	-	-	-
Bay scallop	<i>Aequipecten irradians</i>	-	NCT/WES	CP	-	-	-
Blue crab	<i>Callinectes sapidus</i>	-	NCT/WES	CP	-	-	-
Blue mussel	<i>Mytilus edulis</i>	-	NCT/WES	P	NCT	P	-
Brown shrimp	<i>Penaeus aztecus</i>	-	NCT/WES	CP	NCT	CP	X
Common rangia	<i>Rangia cuneata</i>	-	NCT/WES	C	-	-	-
Dungeness crab	<i>Cancer magister</i>	-	NCT/WES	I	NCT	P	-
Grass shrimp	<i>Palaemonetes</i> spp.	-	NCT/WES	I	-	-	-
Hard clam	<i>Mercenaria mercenaria</i>	-	NCT/WES	CP	NCT	CP	X
Littleneck clam	<i>Protothaca staminea</i>	-	NCT/WES	I	NCT	CP	X
Pink shrimp	<i>Penaeus duorarum</i>	-	NCT/WES	CP	NCT	CP	-
Red swamp crayfish	<i>Procambarus clarki</i>	-	WLT	C	-	-	-
Sea scallop	<i>Placopecten magellanicus</i>	-	NCT/WES	I	-	-	-
Soft shell clam	<i>Mya arenaria</i>	-	NCT/WES	I	-	-	-
Spiny lobster	<i>Panulirus argus</i>	-	NCT/WES	I	-	-	-
Stone crab	<i>Menippe mercenaria</i>	-	NCT/WES	CP	-	-	-
Surf clam	<i>Spisula solidissima</i>	-	NCT/WES	CP	-	-	-
White shrimp	<i>Penaeus setiferus</i>	-	NCT/WES	C	NCT	CP	X

Table 7  
Contacts for Information Concerning Habitat Models and  
Literature Reviews

<u>WES</u>	<u>AFG</u>
US Army Corps of Engineers Waterways Experiment Station/WESER PO Box 631 Vicksburg, MS 39180-0631	Alaska Department of Fish and Game Juneau, AK 99801
L. Jean O'Neil (Model testing) (601) 634-3641 FTS 542-3641	Contact Jon Nickles (AFW) for AFG documents
Chester O. Martin (Literature reviews) (601) 634-3958 FTS 542-3958	<u>WLT</u>
<u>FS</u>	US Fish and Wildlife Service Western Energy and Land Use Team HEP Group One Creekside Building 2627 Redwing Road Fort Collins, CO 80526
US Forest Service Wildlife and Fish Ecology Unit 3825 East Mulberry Fort Collins, CO 80524	Mel Schamberger (303) 226-9424 FTS 323-5424
Hal Salwasser (303) 493-0904 FTS 323-1472	<u>NRP</u>
<u>NCT</u>	US Fish and Wildlife Service National Reservoir Research Program Fayetteville, AR 72701
US Fish and Wildlife Service National Coastal Ecosystems Team Coastal/Estuarine HEP Group NASA/Slidell Computer Complex 1010 Gause Boulevard Slidell, LA 70458	Contact Mel Schamberger (WLT) for NRP documents.
Carroll L. Cordes (540) 255-6511 FTS 685-6511	
<u>AFW</u>	
Supervisor, Special Services US Fish and Wildlife Service 1011 East Tudor Anchorage, AK 99503	
Jon Nickles (907) 786-3492	