Database Code: AS006

Title: Aquatic Vertebrate Population Study in Mack Creek, Andrews Experimental Forest, 1987 to present

Abstract:

Populations of Coastal Cutthroat trout (Onchorhyncus clarkii clarkii) in two standard reaches of Mack Creek in the H.J. Andrews Experimental Forest have been monitored since 1987. Monitoring of Coastal Giant Salamanders, Dicamptodon tenebrosus began in 1993. The two standard reaches are in a section of clearcut forest (ca. 1963) and an upstream 500 year old coniferous forest. Sub-reaches are sampled with 2-pass electrofishing, and all captured vertebrates are measured and weighed. Additionally, a set of channel measurements are taken with each sampling. This study constitutes one of the longest continuous records of salmonid populations on record.

Keywords: Amphibians; Animal populations; Aquatic habitats; Biomass; Demography; Disturbance; Ecology; Fish; Fish habitat; Fish populations; Floods; Herpefauna; Population dynamics; Resistance and resilience; Stream ecology; Streams; Timber harvesting; Trout; Vertebrates; Populations; habitats; populations; demography; ecology; stream ecology; population dynamics; floods; biomass; resistance and resilience; disturbance; timber harvest; aquatic ecosystems; streams; animals; vertebrates; amphibians; fishes; trout; reptiles;

Date data commenced: 1987-10-06
Date data terminated: 2019-09-05
Principal Investigator: Ivan Arismendi

List of Entities:

1. Vertebrate numbers and size
2. Habitat dimensions

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### 2: Habitat dimensions

Measurements of channel units within vertebrate sampling area

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Attributes Definitions:

**CLIP**

Fin clip type (Onchoryhncus recaptures only). Ended in 2006.

**DBCODE**

Database Code

**DEPTH1**

Depth 1 along width1 transect

**DEPTH10**

Depth 2 along width3 transect

**DEPTH11**

Depth 3 along width3 transect

**DEPTH12**

Maximum depth along width3 transect

**DEPTH13**

Depth 1 along width4 transect

**DEPTH14**

Depth 2 along width4 transect

**DEPTH15**

Depth 3 along width4 transect

**DEPTH16**

Maximum depth along width4 transect

**DEPTH17**

Depth 1 along width5 transect

**DEPTH18**

Depth 2 along width5 transect

**DEPTH19**

Depth 3 along width5 transect

**DEPTH2**

Depth 2 along width1 transect
DEPTH20
  Maximum depth along width5 transect
DEPTH3
  Depth 3 along width1 transect
DEPTH4
  Maximum depth along width1 transect
DEPTH5
  Depth 1 along width2 transect
DEPTH6
  Depth 2 along width2 transect
DEPTH7
  Depth 3 along width2 transect
DEPTH8
  Maximum depth along width2 transect
DEPTH9
  Depth 1 along width3 transect
ENTITY
  Entity number
LENGTH
  Channel unit length
LENGTH1
  Length type 1 (total or snout-fork length for Onchorhyncus, snout-vent for Dicamptodon). See supplemental information in metadata.
LENGTH2
  Length type 2 (Dicamptodon only--snout-tail)
MAXDEPTH
  Maximum depth channel unit
NOTES
  Comments
PASS
  Electoshocking pass number
PITNUMBER
  Unique pit tag number; tag is embedded in vertibrate. Began in 2007.
REACH
  Reach sampled (in 50 m distances)
SAMPLEDATE
  Date sampled
SECTION
Location of sampling section

SITECODE
  Coded name of sample area

SPECIES
  Vertebrate species sampled

UNITNUM
  Channel unit number (sequential)

UNITTYPE
  Channel unit classification type

VERT_INDEX
  Unique numerical index of vertebrates measured (for creating key field)

WEIGHT
  Weight of individual organism (not taken after 1999)

WIDTH1
  Wetted width of channel unit -- transect 1

WIDTH2
  Wetted width of channel unit -- transect 2

WIDTH3
  Wetted width of channel unit -- transect 3

WIDTH4
  Wetted width of channel unit - transect 4

WIDTH5
  Wetted width of channel unit - transect 5

YEAR
  Year of Survey

Enumerated Domains:

Enumerated Domain for Attribute: CLIP
  LV  Left ventral fin
  LVRV Left and right ventral fins
  RV  Right ventral fin
  NONE No ventral fin clip

Enumerated Domain for Attribute: DBCODE
  AS006 FSDB database code AS006

Enumerated Domain for Attribute: REACH
  L  Lower reach of section, 0-50 m
  M  Middle reach of section, 50-100 m
  U  Upper reach of section, 100-150 m
Enumerated Domain for Attribute: SECTION
AL Above Lava Falls, in old-growth forest (1996 only)
CC Cleacut
OG Old Growth

Enumerated Domain for Attribute: UNITTYPE
C Cascade
I Riffle
IP Isolated Pools --not connected to main channel
P Pool
R Rapid
S Step (small falls)
SC Side Channel
NA Not sampled by unit

Enumerated Domain for Attribute: DBCODE
AS006 FSDB database code AS006

Enumerated Domain for Attribute: REACH
L Lower reach of section, 0-50 m
M Middle reach of section, 50-100 m
U Upper reach of section, 100-150 m

Enumerated Domain for Attribute: SECTION
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Enumerated Domain for Attribute: UNITTYPE
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