AFSC/ABL: Chum salmon allozyme baseline

Theme keywords: Biota, 002

Abstract: Allozymes from 46 loci were analyzed from chum salmon (Oncorhynchus keta) collected at 61 locations in southeast Alaska and northern British Columbia. Of the 42 variable loci, 21 had a common allele frequency <0.95. We observed significant heterogeneity within and among six regional groups: central southeast Alaska, Prince of Wales Island area, southern southeast Alaska – northern British Columbia, north-central British Columbia, and two groups in the Queen Charlotte Islands. Genetic variation among regions was significantly greater than within regions. The three island groups were distinct from each other and from the mainland populations. Allele frequencies were stable over time in 14 of 15 locations sampled for more than 1 yr. The geographic basis for heterogeneity among regions is confounded in part by spawning-time differences. The Prince of Wales and Queen Charlotte populations spawn in the fall; the mainland populations spawn mainly in the summer, although some overlap exists. Overall, most genetic diversity (97%) occurred within sampling locations; the remaining diversity was distributed almost equally within and among regions. Our genetic data may provide fishery managers a means to estimate stock composition in the mixed-stock fisheries near this boundary between the United States and Canada.

FGDC, ESRI, and Biological Profile Metadata:

Metadata elements shown with **blue** text are defined in the Federal Geographic Data Committee's (FGDC) *Content Standard for Digital Geospatial Metadata (CSDGM)*. Elements shown with **green** text are defined in the *ESRI Profile of the CSDGM*. Elements shown with **brown** text are defined in the *NBII Biological Profile of the CSDGM*. Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:

Citation information:

Originators: Chris Kondzela, AFSC

Title:

AFSC/ABL: Chum salmon allozyme baseline

Publication date: 1994
Geospatial data presentation form: maps and data

Other citation details:
Kondzela, C.M., C.M. Guthrie, S.L. Hawkins, C.D. Russell, J.H. Helle, and A.J. Gharrett. 1994. Genetic relationships among chum salmon populations in southeast Alaska and northern British Columbia. Canadian Journal of Fisheries and Aquatic Sciences 51(1): 50-64.

Description:

Abstract:

Allozymes from 46 loci were analyzed from chum salmon (Oncorhynchus keta) collected at 61 locations in southeast Alaska and northern British Columbia. Of the 42 variable loci, 21 had a common allele frequency <0.95. We observed significant heterogeneity within and among six regional groups: central southeast Alaska, Prince of Wales Island area, southern southeast Alaska – northern British Columbia, north-central British Columbia, and two groups in the Queen Charlotte Islands. Genetic variation among regions was significantly greater than within regions. The three island groups were distinct from each other and from the mainland populations. Allele frequencies were stable over time in 14 of 15 locations sampled for more than 1 yr. The geographic basis for heterogeneity among regions is confounded in part by spawning-time differences. The Prince of Wales and Queen Charlotte populations spawn in the fall; the mainland populations spawn mainly in the summer, although some overlap exists. Overall, most genetic diversity (97%) occurred within sampling locations; the remaining diversity was distributed almost equally within and among regions. Our genetic data may provide fishery managers a means to estimate stock composition in the mixed-stock fisheries near this boundary between the United States and Canada.

Purpose:

This database contains the allozyme baselines from 46 loci located in southeast Alaska and British Columbia.

Time period of content:

Time period information:

Range of dates/times:

Beginning date: 1986
Ending date: 1990

Currentness reference:

ground condition

Status:

Progress: Complete
Maintenance and update frequency: None planned

Spatial domain:

Description of geographic extent:

Alaska, Southeast Alaska, British Columbia, Canada

Bounding coordinates:

West bounding coordinate: -137
East bounding coordinate: -126
North bounding coordinate: 60
South bounding coordinate: 51

Keywords:

Theme:

Theme keywords: Biota, 002
Theme keyword thesaurus: ISO 19115 Topic Categories

Place:

Place keywords: Alaska
Place keyword thesaurus: Geographic Names Information System

Taxonomy:

Keywords/taxon:

Taxonomic keywords: collection, multiple species, vertebrates
Taxonomic keyword thesaurus: None

Taxonomic classification:

Taxon rank name: Empire
Taxon rank value: Biovitae
Applicable common names: Carbon-based lifeforms

Taxonomic classification:

Taxon rank name: Kingdom
Taxon rank value: Animalia

Taxonomic classification:

Taxon rank name: Phylum
Taxon rank value: Chordata

Taxonomic classification:

Taxon rank name: Subphylum
Taxon rank value: Vertebrata

Taxonomic classification:
Taxon rank name: Superclass
Taxon rank value: Osteichthyes

Taxonomic classification:
Taxon rank name: Class
Taxon rank value: Actinopterygii

Taxonomic classification:
Taxon rank name: Subclass
Taxon rank value: Neopterygii

Taxonomic classification:
Taxon rank name: Infraclass
Taxon rank value: Teleostei

Taxonomic classification:
Taxon rank name: Superorder
Taxon rank value: Protacanthopterygii

Taxonomic classification:
Taxon rank name: Order
Taxon rank value: Salmoniformes

Taxonomic classification:
Taxon rank name: Family
Taxon rank value: Salmonidae

Taxonomic classification:
Taxon rank name: Subfamily
Taxon rank value: Salmoninae

Taxonomic classification:
Taxon rank name: Genus
Taxon rank value: Oncorhynchus

Taxonomic classification:
Taxon rank name: Species
Taxon rank value: keta
Applicable common names: chum salmon

Access constraints: There are no legal restrictions on access to the data. They reside in public domain and can be freely distributed.

Use constraints:

User must read and fully comprehend the metadata prior to use. Data should not be used beyond the limits of the source scale. Acknowledgement of NOAA, as the source from which these data were obtained, in any publications and/or other representations of these data is suggested.

Point of contact:

Contact information:

Contact person primary:

Contact person: Chris Kondzela

Contact organization: National Oceanic and Atmospheric Administration (NOAA) Alaska Fisheries Science Center (AFSC) Auke Bay Laboratories (ABL)

Contact address:

Address type: mailing and physical

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17109 Point Lena Loop Road

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State or province: AK

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Country: USA

Contact voice telephone: 907-789-6000

Contact facsimile telephone: 907-789-6094

Contact electronic mail address: chris.kondzela@noaa.gov

Contact instructions:

The e-mail address directs you to the person most knowledgeable about this data. If an alternative contact person becomes necessary, use the voice phone number for referral.

Native data set environment:

Microsoft Excel Spreadsheet

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Data Quality Information:

Logical consistency report:
No logical consistency test were run.

Completeness report:
None

Lineage:
Process step:
Process description:
No process steps have been described for this data set

Process date: Unknown

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Distribution Information:

Distributor:
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Contact instructions:
The e-mail address directs you to the person most knowledgeable about this data. If an alternative contact person becomes necessary, use the voice phone number for referral.

Resource description: Offline data

Distribution liability:
The user is responsible for the results of any application of this data for other than its intended purpose.

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Metadata Reference Information:

Metadata date: 20081209
Metadata review date: 20100122

Metadata contact:
Contact information:
Contact person primary:
Contact person: Emily Fergusson
Contact organization: National Oceanic and Atmospheric Administration (NOAA) Alaska Fisheries Science Center (AFSC) Auke Bay Laboratories (ABL)
Contact position: Metadata coordinator

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Postal code: 99801
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Metadata standard name: FGDC Biological Data Profile of the Content Standard for Digital Geospatial Metadata
Metadata standard version: FGDC-STD-001.1-1999

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