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# FISHERIES RESEARCH BOARD OF CANADA

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MANUSCRIPT REPORT SERIES

No. 1332

# A Preliminary Annotated Bibliography on Georgia Strait Fishes

by

B. E. McInnes, F. W. Nash and H. Godfrey

Pacific Biological Station, Nanaimo, B.C.

November 1974

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#### INTRODUCTION

Early in 1973, the "Georgia Strait Committee" was formed at this Station and given terms of reference to develop proposals for biological and oceanographic research in the Strait. Such research was to be directed towards obtaining information that is becoming increasingly needed to manage and conserve the marine resources of these unique waters. Problems of management and conservation are becoming critical in the Strait as the multiple-use demands on its resources spiral. The nature of these demands ranges from intensive industrial use such as ocean-floor mining and shipping, to sport fishing and the establishment of marine parks and estuaries.

From the outset, the Committee recognized that over the years a great amount of scientific investigation already had been conducted in the Strait, and that vast amounts of biological and oceanographic information on the Strait already existed. The Committee also appreciated, however, that this information was widely scattered in a considerable variety of publications, and in addition, and in particular, that much information yet remained unreported and unaccessible in files and in original field records. It was obvious that before new research projects were initiated, the existing data should be examined and synthesized. This bibliography has been compiled, therefore, to assist in that objective. It may be considered a "working" bibliography, in the sense that the format is designed in such a way that new documents can be entered into the punch card deck, and a new listing made quickly and at a low cost.

This particular bibliography is specifically concerned with the fishes of Georgia Strait, and other bibliographies are being prepared through the Committee on estuaries and on other marine organisms. However, a degree of flexibility has been maintained, through the inclusion of other documents that were considered useful for the general purpose of the bibliography, particularly reports on such related subjects as food organisms, migrations and so forth. Also included are some reports on research conducted in adjacent waters (Puget Sound, for example).

The authors of the bibliography recognize that it is by no means a completed compilation on the subject. From its users, we would welcome both suggestions for the inclusion of new material, and constructive comments on its design. In particular, we are anxious to obtain information and original data that are as yet unreported, or that to date have had only very limited dissemination. If readers agree on the usefulness of a "working" document such as this, then a more inclusive bibliography should prove especially valuable in this field in the future.

#### DEFINITIONS

#### Sub ject

In addition to material on fishes of the Strait, the bibliography includes documents on Georgia Strait oceanographic studies, on shellfish and crustacea, fishing methods, catch statistics, stream surveys, and several other pertinent organisms and topics.

#### Area

Arbitrarily, Georgia Strait for these purposes extends from Johnstone Strait in the north to the entrance of the Strait of Juan de Fuca in the south (thus encompassing the islands of the Juan de Fuca Archipelago). However, some literature dealing with adjacent waters (particularly Puget Sound), and the Queen Charlotte Islands (information on certain organisms), also has been included.

#### LITERATURE SOURCES, CITATIONS, AND BIBLIOGRAPHY FORMAT

#### Literature sources

The bibliography consists primarily of publications of the Fisheries Research Board of Canada, (formerly, the Biological Board of Canada), and includes papers from its Journal, Studies, Studies Supplements, Interpretive Articles, the Bulletin, Circulars, Manuscript Reports, Technical Reports and Progress Reports of Pacific Coast Stations. In addition, some university theses, trade journal articles, statistical bulletins and some papers from Puget Sound area sources have been included.

#### Literature citations

All serial titles and other publications have been abbreviated in accordance with Biosis. List of serials.

#### <u>Bibliography</u> format

To facilitate the use of a keyword information retrieval system (Storie, 1971), each document was described in the following format:

AUTHOR(S) = DOCUMENT DESCRIPTION (E.G., PUBLISHER, DOCUMENT TYPE AND LOCATION CODE, NUMBER OF PAGES, ETC.) + PUBLISHING DATE = DOCUMENT TITLE + ADDITIONAL KEYWORDS TO THOSE IN THE TITLE = ABSTRACT =

The "ADDITIONAL KEYWORD" field (and the preceding + sign) may or may not be present. An unavailable abstract was indicated by the letters NA, an unavailable publishing date was indicated by the letters OO.

Five document location codes were used, and are as follows:

LIB - the Pacific Biological Station library.

GSM - The Georgia Strait Program file (Pacific Biological Station).

- OPL the Fisheries and Marine Service, Operations (Vancouver) library.
- AUT not available in the above libraries, but presumably available through the author(s) or publisher.

000 - not available from any known location.

#### ORGANIZATION OF THE BIBLIOGRAPHY

The bibliography contains 1410 references, and it consists of three parts:

1. Author Index. This is an alphabetical listing of the authors. For each author, one or more numbers (document numbers) are listed, which are the numbers given to their papers as they appear in the Bibliographic Listing (below).

2. <u>Keyword Index</u>. This is an alphabetical listing of significant words selected from the title of each document included, and of other pertinent words, in accordance with the instructions for using the bibliography as given below.

3. <u>Bibliographic Listing</u>. This is a non-ordered list of all the documents included in the bibliography, with their assigned document numbers in numerical sequence.

#### HOW TO USE THE BIBLIOGRAPHY

Its use is best illustrated by giving an example, employing the Keyword Index. Let us say that we are interested in: (a) <u>COHO</u> salmon; and (b) <u>COHO</u> salmon in <u>SAANICH INLET</u>.

For (a), we would refer to the Keyword Index for <u>COHO</u>, and find 115 documents listed by number from the Bibliographic Listing, all of which mention coho in some context.

For (b), we would refer to the Keyword Index for numbers repeated under the two keywords, <u>COHO</u> and <u>SAANICH</u> <u>INLET</u> -- which would be number 1231 only.

Another example, might be catch statistics information on coho salmon, for which the keywords would be <u>COHO</u> and <u>CATCH</u> <u>STATISTICS</u>. In this example, the numbers common to both would be 173, 243 and 284.

Further explanation on the use of the bibliography is made by explaining the source and selection of the words used in the Keyword Index. The computer program originally generated more than 15,000 keywords, most of which were irrelevant for the purpose at hand, and they were, therefore, discarded (such words from titles as "important," "spiny," "what," "Columbia," "analysis" and so forth).

Most generic and species names that appeared in titles also were discarded in favour of the appropriate general common name. For example, "dogfish" instead of <u>Squalus suckleyi</u> or <u>Squalus acanthias</u>. In addition, further reduction in the number of keywords was achieved by grouping taxonomically related organisms under an accepted common name (the several species of clams, for example, under the keyword "clam"), or under a common "Class," "Order," or "Family."

#### ACKNOWLEDGEMENTS

The authors wish to acknowledge the excellent assistance given by Mrs. Jocelyne Groves in searching for and selecting the documents contained herein; Mrs. Monica Mayes for her patience and accuracy in the IBM coding; the staffs of the Pacific Biological Station computing center and library, and the library staff of the Operations Branch of the Fisheries Service. We are especially grateful to those individuals who contributed unpublished reports and data.

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| GOODMAN J<br>1336,               |       |                      |      |              |              |              |              |  |
| GORDON RN<br>607,                |       |                      | •    |              |              |              |              |  |
| GRAHAM ČC<br>5,                  | 1229, | 1401,                |      |              |              |              |              |  |
| GRAN HH<br>608,                  | 609,  |                      |      |              |              |              |              |  |
| GRAY JS<br>610,                  |       |                      |      |              |              |              |              |  |
| GREENFIELD D<br>23,              | W     |                      |      |              |              |              |              |  |
| GREENWOOD MR<br>1337,            |       |                      |      |              |              |              |              |  |
| GRIER MÇ<br>611,                 |       |                      |      |              |              |              |              |  |
| GRIFFIN BB<br>619,               |       |                      |      |              |              |              |              |  |
| GRINDLS RB<br>612,               | 1338, |                      |      |              | ۰.           |              |              |  |
| GROSS MG<br>617,                 |       |                      |      |              |              |              |              |  |
| GRUNCHY CG<br>452,               |       |                      |      |              |              |              |              |  |
|                                  |       |                      |      |              |              |              |              |  |

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|   | HOLMES JC<br>414,  |                                      |              |       |                                       |                      |                      |                                       |                                       |
|---|--|--------------------------------------|--------------|-------|---------------------------------------|----------------------|----------------------|---------------------------------------|---------------------------------------|
|   | HOURSTON AS<br>114,<br>259,<br>268,<br>326,<br>958,<br>1232, | 251,<br>260,<br>269,<br>327,<br>959, | 261,<br>270, | 271,  | 254,<br>263,<br>272,<br>640,<br>1112, | 264,<br>273,<br>641, | 265,<br>274,<br>870, | 257,<br>266,<br>275,<br>956,<br>1123, | 258,<br>267,<br>325,<br>957,<br>1222, |
|   | HUANG YC<br>738,   |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | HUMPHREY RR<br>642,  |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | HUMPHREYS RD<br>1234,  | 1235,                                |              |       |                                       |                      |                      |                                       |                                       |
|   | HUNTER M<br>1236,  |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | HUNTSMAN AG<br>83,   | 644,                                 |              |       |                                       |                      |                      |                                       |                                       |
|   | HURD AM<br>645,  |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | HURST A 646,   |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | HUTCHINSON AH<br>647,  |                                      | 871,         | 1082, | 1083,                                 |                      |                      |                                       |                                       |
|   | HYSLOP WF<br>320,  | 321,                                 | 357,         |       |                                       |                      |                      |                                       |                                       |
|   | IDYLL CP<br>649,   |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | ISAACSON RSK<br>254,<br>263,<br>272,                         | 264,                                 | 265,         | 266,  | 258,<br>267,<br>327,                  | 268,                 | 260,<br>269,         | 261,<br>270,                          |                                       |
|   | JAČKSON KJ<br>769,   |                                      |              |       |                                       |                      |                      |                                       |                                       |
|   | JACKSON VW<br>1005,  |                                      | •            |       |                                       |                      |                      |                                       |                                       |
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| JENKINSON DW<br>103,<br>329, |              | 105,<br>383,  | 106, | 107,  | 219,   | 220, | 276, | 328, |
| JENSEN HM 285,               | 651,         | 652,          | 695, | 1023, | 1350,  |      |      |      |
| JEWEL E<br>285,              | 651,         | 652,          | 653, | 695,  | .1023, |      |      |      |
| JOHNSON HP<br>1007,          |              |               |      |       |        |      |      |      |
| JOHNSON MW<br>.654,          | 655,         | 656,          | 657, | 658,  | 659,   |      |      |      |
| JOHNSON UW<br>41,            |              |               |      |       |        |      |      |      |
| JOHNSON WW<br>102,           |              |               |      |       |        |      |      |      |
| JONES A<br>1295,             | 1296,        |               |      |       |        |      |      |      |
| JURDAN DS 660,               |              |               |      |       |        |      |      |      |
| JUNGE CO<br>651,             |              |               |      |       |        |      |      |      |
| KABATA Z<br>415,             | 416,         | 417,          | 418, | 419,  | 1084,  |      |      |      |
| КАЅК ВА<br>331,              | 339,         | 340,          | 341, | 342,  |        |      |      |      |
| KATKANSKY SC<br>420,         |              |               |      |       |        |      |      |      |
| KAUFFMAN DE<br>1351,         |              | <i>y</i> •    |      |       |        |      |      |      |
| KENNEDY OD<br>222,<br>467,   | 235,<br>980, | 236,<br>1085, |      | 238,  | 239,   | 277, | 316, | 317, |
| KENNEDY WA<br>278,           | 421,         | 422,          | 933, | 962,  | 963,   | 964, |      | ,    |

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| LUSK BM<br>686',                    |              |       |       |       | ۰.    |       |       |       |
|-------------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|
| MACASKIE IB<br>185,                 |              |       |       |       |       |       |       |       |
| MACKAY AH<br>490,                   |              |       |       |       |       | · .   |       |       |
| MACKAY DCG<br>181,                  | 433,         | 675,  | 879,  | 1012, | 1013, | 1014, | 1015, | 1016, |
| MACKINNON D<br>676,                 |              |       |       |       |       |       |       |       |
| MACPHEE C<br>677,                   |              |       | ·     |       |       |       |       |       |
| MACY RW<br>642,                     |              |       |       |       |       |       |       |       |
| MAJOR RL<br>678,                    |              |       |       |       |       | ۰.    |       |       |
| MANZER DF<br>303,                   |              |       |       |       |       |       |       |       |
| MANZER JI<br>337,                   | 345,         | 434,  | 435,  | 679,  | 880,  | 881,  | 882,  | 1086, |
| MARGOLIS L<br>281,<br>683,<br>1397, | 282,<br>684, |       |       |       |       |       |       |       |
| MARKHAM JW<br>1018,                 |              |       |       |       |       |       |       |       |
| MARLES EW<br>686,                   | 1295,        | 1296, |       |       |       |       |       |       |
| MARSHALL DE<br>1,                   | 3,           | 1239, | 1388, |       |       |       |       |       |
| MASON JC<br>438,                    |              |       |       |       |       |       |       |       |
| MASON JE<br>678,                    |              |       |       |       |       |       |       |       |

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|---|------------------------------|------|--------------|--------------|------|--------------|----------------------|----------------------|
| MUNDIE JH<br>338,                       | 969,                         |      |              |              |      |              | : .                  |                      |
| MUNRO JA<br>184,                        | 701,                         | 702, | 703,         | 704,         | 705, | 706,         | 707,                 |                      |
| NAGASAKI F<br>444,                      |                              |      |              |              |      |              |                      |                      |
| NARVER DW<br>119,                       | 970,                         |      |              |              |      |              |                      |                      |
| NASH FW<br>325,                         | 326,                         | 956, | 957,         | 958,         |      |              |                      |                      |
| NEAVE EA<br>303,                        |                              |      |              |              |      |              |                      |                      |
| NEAVE F<br>120,<br>709,<br>718,<br>894, | 177,<br>710,<br>742,<br>895, | 711, | 888,         | 713,<br>889, | 714, | 715,<br>891, | 627,<br>716,<br>892, | 708,<br>717,<br>893, |
| NEEDLER AB<br>87,                       |                              |      | · .          |              |      |              |                      |                      |
| NEWMAN M<br>719,                        |                              |      |              |              |      |              |                      |                      |
| NICHOLS FH<br>446,                      | 986,                         |      |              | I            |      |              |                      |                      |
| NORRIS RE<br>1028,                      |                              |      |              |              |      |              |                      |                      |
| NORTHCOTE TG<br>720,                    |                              |      |              |              |      |              |                      |                      |
| 0'DONOGHUE C<br>88,<br>1094,            | 89,                          |      | 91,<br>1096, |              |      | 1029,        | 1030,                | 1093,                |
| N'DONOGHUE E<br>88,                     | 91,                          |      |              |              |      |              |                      |                      |
| OLDROYD IS<br>1031,                     |                              |      |              |              |      |              |                      | . *                  |
| O'MALLEY H<br>723,                      |                              |      | ,            |              |      |              |                      | ·                    |
|   |                              |      |              |              |      |              |                      |                      |

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| OSTERHAUG KL<br>1357,                    |              |              |              |               |              |                               |                               |                      |
|--|--------------|--------------|--------------|---------------|--------------|-------------------------------|-------------------------------|----------------------|
| OUTRAM DN<br>54,<br>127,<br>136,<br>913, | 128,<br>137, | 129,<br>203, | 130,<br>290, | 131,<br>447,  | 132,<br>724, | 124,<br>133,<br>725,<br>1119, | 125,<br>134,<br>791,<br>1120, | 126,<br>135,<br>897, |
| PACIFIC DCEAN<br>292,                    | NOGRAPH      | IC GROU      | <b>P</b> .   |               |              |                               |                               |                      |
| PALMER RN<br>1242,                       | 1243,        | 1244,        | 1245,        |               |              |                               |                               |                      |
| PAMATMAT MM 726,                         |              |              |              |               |              |                               |                               |                      |
| PARK TS<br>448,                          | 449,         |              |              |               |              |                               |                               |                      |
| PARKER RR<br>331,                        | 339,         | 340,         | 341,         | 342,          | 450 <b>,</b> |                               |                               |                      |
|  |              |              |              | 451,<br>1111, |              |                               | .727,                         | 773,                 |
| PEASE AK<br>250,                         | 316,         | 317,         | 728,         |               |              |                               |                               |                      |
| PEDEN AE<br>452,                         |              |              |              |               |              |                               |                               |                      |
| PENFOLD V<br>729,                        | 730,         | 731,         | •            |               |              |                               |                               |                      |
| PERRY EM<br>733,                         |              |              |              | ·             |              |                               |                               |                      |
| PETERS JE<br>1329,                       |              |              |              |               |              |                               |                               |                      |
| PETERSON DR<br>1032,                     |              |              |              |               |              |                               |                               |                      |
| PETEURA WT<br>1309,                      |              |              |              |               |              |                               |                               |                      |
| PETTIBONE MH<br>734,                     | 735,         | 9            |              |               |              |                               |                               |                      |
|  |              |              |              |               |              |                               |                               |                      |

| PHIFER LD<br>736,                    | 737,  | 806, | 1033, | 1034,        | 1035,        |              |              |
|--------------------------------------|-------|------|-------|--------------|--------------|--------------|--------------|
| PIERRON RP<br>738,                   |       |      |       |              |              |              |              |
| PIKE GC<br>185,                      | 453,  |      |       |              |              |              |              |
| PILSBURY AH<br>739,                  |       |      |       |              |              |              |              |
| PITRE KR<br>1203,                    | 1204, |      |       |              |              |              |              |
| PIXELL HLM<br>1036,                  |       |      |       |              |              |              |              |
| PIXELL HM<br>1037,                   |       |      |       |              |              |              |              |
| PLETCHER FT<br>740,                  | 962,  |      |       |              |              |              |              |
| POPE CA<br>1403,                     |       |      |       |              |              |              |              |
| POWELL NA 454,                       |       |      |       |              |              |              |              |
| PRAKASH A<br>455,                    | 456,  | 898, |       |              |              |              |              |
| PREST J<br>293,                      | 971,  | 972, |       |              |              |              |              |
| PREST JE<br>943,                     |       |      |       |              |              |              |              |
| PRINCE EE<br>1359,                   |       |      |       |              |              |              |              |
| PRITCHARD A1<br>186,<br>741,<br>905, |       |      | 899,  | 190,<br>900, | 191,<br>901, | 457,<br>902, | 561,<br>903, |
| PRUTER AT<br>1311,                   |       |      |       |              |              |              |              |

713, 904,

|   | QUAYLE DB<br>20,<br>217,<br>301,<br>461,<br>749,<br>973, |              | 627,<br>906, | 192,<br>295,<br>335,<br>743,<br>907, | 296,<br>343, | 745, | 298,<br>458, | 214,<br>299,<br>459,<br>747,<br>911, | 216,<br>300,<br>460,<br>748,<br>933, |
|---|--|--------------|--------------|--------------------------------------|--------------|------|--------------|--------------------------------------|--------------------------------------|
|   | QUIGLEY JP<br>1360,                                      |              |              |                                      |              |      |              |                                      |                                      |
|   | RAMEY CW<br>974,   |              | . •          |                                      |              |      |              | •                                    |                                      |
|   | RAPATZ WJ<br>686,  |              |              |                                      |              |      |              |                                      |                                      |
|   | RATHBUN MJ<br>750,                                       |              |              |                                      |              |      |              |                                      |                                      |
|   | RAWLE J<br>751,  |              |              |                                      |              |      |              |                                      |                                      |
| • | REGAN L<br>1038,   |              |              |                                      |              |      |              |                                      |                                      |
|   | RICE L<br>752,   |              |              |                                      |              |      |              |                                      |                                      |
|   | RICKER WE<br>139,<br>755,                                | 195,<br>756, | 303,         | 304,                                 | 345,         | 346, | 463,         | 753,                                 | 754 <b>,</b>                         |
|   | RIGG GB<br>591,  | 757,         | 1039,        | 1040,                                |              |      |              |                                      |                                      |
|   | RING RA 697,   | 698,         |              |                                      |              |      |              |                                      |                                      |
|   | ROBERTS E<br>472,  |              |              |                                      |              |      | •            |                                      | •                                    |
|   | ROBERTS LS<br>758,                                       |              |              |                                      |              |      |              |                                      |                                      |
|   | ROBERTS RFA<br>1216,                                     | 1217,        | 1246,        |                                      |              |      |              |                                      |                                      |
|   | ROBINSON DG<br>210,                                      | 305,         | 306,         | 307,                                 | 308,         | 376, | 1409,        |                                      |                                      |
|   |  |              |              |                                      |              |      |              |                                      |                                      |

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|-------------------------------------|--------------------------------|---------------|---------------|---------------|--------------|-----------------------|------|------|--|
| TATTERSALL W<br>92,                 | IM                             |               |               |               |              |                       |      |      |  |
| TAYLOR GW<br>93,                    |                                |               |               |               |              |                       | ,    |      |  |
| 447,<br>1050,                       | 148,<br>798,<br>1116,<br>1374, | 799,<br>1117, | 800,<br>1118, | 801,<br>1119, | 881,         | 153,<br>915,<br>1319, | 981, | 982, |  |
| TAYLOR FJR<br>456,                  |                                |               |               |               |              |                       | . ·  |      |  |
| TERHUNE LDB<br>462,                 | 795,                           |               |               |               |              |                       |      |      |  |
| 471,                                | 903,                           | 625,          | 626,<br>917,  | 802,<br>918,  | 803,<br>919, |                       | 805, | 864, |  |
| THOMAS B<br>1052,                   |                                |               |               |               |              |                       |      |      |  |
| THOMPSON JA<br>920,                 | 1377,                          |               |               | • •           |              |                       |      |      |  |
| THOMPSON TG<br>608,                 | 806,                           |               |               |               |              |                       |      |      |  |
| THOMPSON WF<br>807,                 | 808,                           | 809,          |               |               |              |                       |      |      |  |
| THOMSON JA<br>159,<br>168,<br>1355, | 160,<br>169,                   |               | 162,<br>171,  |               | 164,<br>234, |                       |      |      |  |
| TIFFANY LH<br>819,                  |                                |               |               |               |              |                       |      |      |  |
| TODD IS<br>810,                     | 1278,                          | 1279,         | 1280,         |               |              |                       |      |      |  |
| TOFSRUD W<br>1283,                  | 1284,                          |               |               |               |              |                       |      |      |  |
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|--------------|---------------|-------|-------|--------|-------|-------|---------|-------|
| CATCH STATIS |               |       |       |        |       |       |         |       |
|              |               |       | 243   | 252    | 252   | 254   | 255     | 254   |
| 221,         | 224,          |       | 243,  |        |       | 254,  | 255,    | 256,  |
| 257,         | 258,          |       |       | 261,   | 262,  | 263,  | 264,    | 265,  |
| 266,         |               |       | 269,  | 270,   | 271,  | 272,  | 273,    | 274,  |
| 275,         | 275,          | 276,  | 284,  | 290,   | 293,  | 305,  | 306,    | 307,  |
| 308,         | 310,          | 311,  | 312,  | 323,   | 324,  | 326,  | 327,    | 328,  |
|              |               |       |       |        |       |       |         | 652,  |
|              |               |       |       |        |       |       | 966,    | 971,  |
|              |               | 977,  | 978,  | 979,   | 1143, | 1144, | 1145,   | 1146, |
|              |               |       |       |        |       |       |         |       |
|              |               | 1201, | 1207, | 1209,  |       |       | 1229,   | 1239, |
|              | 1246,         | 1249, | 1291, | 1325,  | 1331, | 1349, | 1322,   | 1371, |
| 1409,        |               |       |       |        |       |       |         |       |
|              |               |       |       |        |       |       |         |       |
| CESTODA      |               |       |       |        |       |       |         |       |
| 98,          | 99,           | 623,  | 624,  |        |       |       |         |       |
|              |               |       |       |        |       |       |         |       |
| CHATHAM SOUN | ND            |       |       |        |       |       |         |       |
|              | 142,          | 224 . | 486.  | 882.   |       |       |         |       |
| 1099         | . 1729        |       | 100,  | 002,   |       |       |         |       |
|              |               |       |       |        |       |       |         |       |
| CHEMAINUS    |               |       |       |        |       |       |         |       |
| 108,         |               |       |       |        |       |       |         |       |
|              |               |       |       |        |       |       |         |       |
| CHINDOK      |               |       |       |        |       |       |         |       |
|              |               | 1,    | 2,    | 3,     | 4,    | 13,   | 14,     | 15,   |
| 29,          | 40,           | 44,   | 50,   | 73,    | 76,   | 80,   | 113,    | 139,  |
| 183,         |               |       |       | 201,   |       | 240,  |         | 242,  |
| 243,         |               | 245,  |       |        |       |       | 304,    |       |
| 314,         |               | 383,  |       |        |       | 5 9 9 |         | 552,  |
|              |               |       |       |        |       |       |         |       |
| 569,         |               |       |       | 691,   |       |       |         | 778,  |
| 814,         |               | 854,  |       | 880,   | 886,  | 887,  | 902,    | 903,  |
| 904,         | 9 <b>9</b> 5, | 1023, | 1070, | 1101,  | 1102, | 1109, | 1149,   | 1162, |
| 1165,        | 1172,         | 1177, | 1181, | 1189., | 1197, | 1199, | 1199,   | 1200, |
| 1202,        | 1204,         | 1210, | 1216, | 1229,  | 1230, | 1231, | 1238,   | 1238, |
| 1239,        |               | 1257, | 1266, | 1282,  | 1303, | 1325, | 1326,   | 1336, |
| 1374,        |               | 1376, | 1382, | 1383,  |       | 1385, | 1385,   | 1386, |
| 1386,        | 1387,         | 1388, | 1398, | 1402,  | 1403, | 1403, | 1404,   | 1410, |
| 1500,        | 13014         | 19004 | 13704 | 14029  | 14099 | 14034 | 1 10 19 | 14107 |
| CHUM         |               |       |       |        |       |       |         |       |
| CHUM         | ( )           | FO    | 7/    | 103    | 104   | 105   | 107     | 120   |
| 2,           | 40,           | 50,   | 76,   | 103,   | 104,  | 105,  | 107,    | 120,  |
| 139,         | 180,          | 186,  | 187,  | 219,   | 220,  | 221,  | 232,    | 240,  |
| 243,         | 276,          | 287,  | 289,  | 304,   | 328,  | 329,  | 330,    | 345,  |
| 362,         | 383,          | 394,  | 409,  | 438,   | 445,  | 463,  | 476,    | 485,  |
| 491,         | 525,          | 552,  | 558,  | 667,   | 668,  | 673,  | 691,    | 692,  |
| 716,         | 742,          | 756,  | 778,  | 810,   | 862,  | 882,  | 900,    | 923,  |
| 927,         | 995,          | 1070, | 1092, | 1101,  | 1109, | 1115, | 1162,   | 1165, |
|              | 1177,         | 1178, | 1182, | 1183,  | 1185, | 1188, | 1190,   | 1193, |
| 1172,        |               |       |       |        |       |       |         |       |
| 1199,        | 1200,         | 1210, | 1216, | 1227,  | 1228, | 1231, | 1238,   | 1239, |
| 1242,        | 1243,         | 1243, | 1244, | 1245,  | 1254, | 1257, | 1266,   | 1278, |
| 1279,        | 1280,         | 1282, | 1283, | 1290,  | 1325, | 1374, | 1376,   | 1382, |
| 1383,        | 1384,         | 1388, | 1398, | 1404,  |       |       |         |       |
|              |               | -     |       |        |       |       |         |       |

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| CLAM      |        |       |       |       |       |       |       |        |        |
|-----------|--------|-------|-------|-------|-------|-------|-------|--------|--------|
| ULAN      | 17,    | 20,   | 46,   | 296,  | 297,  | 301,  | 458,  | 459,   | 460,   |
|           | 506,   | 507,  | 579,  | 580,  | 581,  | 581,  | 582,  | 708,   | 709,   |
|           | 710,   | 711,  | 712,  | 714,  | 715,  | 744,  | 781,  | 782,   | 807,   |
|           | 808,   | 863,  | 893,  | 894,  | 906,  | 908,  | 931,  | 1047,  | 1103,  |
|           | ,      | ,     | ,     |       |       |       |       | ,      | ,      |
| CLAYQU    | ot sou | IND   |       |       |       |       |       |        |        |
|           |        | 1272, |       |       |       |       |       |        |        |
|           |        | · - · |       |       |       |       |       |        |        |
| CLEAR     | PASSAG | E     |       |       |       |       |       |        |        |
|           | 366,   |       |       |       |       |       |       |        |        |
|           |        |       |       |       |       |       |       |        |        |
| COD       |        |       |       |       |       | -     |       |        |        |
|           | 21,    | 51,   | 118,  | 199,  | 397,  | 400,  | 423,  | 858,   | . 859, |
|           | 876,   | 965,  | 966,  | -     |       |       |       |        |        |
|           |        |       |       |       |       |       |       |        |        |
| CODING    | TAGS   |       |       |       |       |       |       |        |        |
|           | 4,     | 212,  | 275,  | 327,  | 653,  | 1230, |       |        |        |
|           |        |       |       |       |       |       |       |        |        |
| СОНО      |        |       |       |       |       |       |       |        |        |
|           | 1,     | 2,    | 4,    | 5,    | 29,   | 37,   | 45,   | 50,    | 74,    |
|           | 76,    | 80,   | 113,  | 120,  | 139,  | 173,  | 183,  | 188,   | 190,   |
|           | 190,   | 232,  | 240,  | 242,  | 243,  | 245,  | 247,  | 247,   | 248,   |
|           | 284,   | 285,  | 286,  |       | 313,  | 314,  | 338,  | 345,   | 359,   |
|           | 383,   | 393,  | 431,  | 455,  | 485,  | 525,  | 552,  | 588,   | 589,   |
|           | 651,   | 652,  | 667,  | 673,  | 691,  | 692,  | 695,  | 716,   | 741,   |
|           | 742,   | 756,  | 769,  | 778,  | 814,  | 862,  | 884,  | 886,   | 887,   |
|           | 888,   | 889,  | 890,  | 898,  | 899,  | 901,  | 904,  | 970,   | 995,   |
|           | 1023,  | 1070, | 1073, | 1089, | 1101, | 1102, | 1109, | 1149,  | 1162,  |
|           | 1165,  | 1172, | 1177, | 1189, | 1197, | 1199, | 1200, | 1202,  | 1204,  |
|           | 1210,  | 1216, | 1229, | 1230, | 1231, | 1238, | 1239, | 1248,  | 1254,  |
|           | 1257,  | 1266, | 1282, | 1303, | 1325, | 1375, | 1382, | 1383,  | 1384,  |
|           | 1387,  | 1398, | 1402, | 1403, | 1403, | 1404, | 1410, |        |        |
|           |        |       |       |       |       |       |       |        |        |
| COLUMB    |        |       |       |       |       |       |       |        |        |
|           | 113,   | 241,  | 245,  | 246,  | 247,  | 248,  | 304,  |        |        |
| 6 6 M M M |        |       |       |       |       |       |       |        |        |
| COMMUN    |        | 70/   | 760   | 776   | 77/   |       |       |        | 1050   |
|           | 430,   | 726,  | 152,  | (15,  | 110,  | ((()  | 812,  | 1010,  | 1252,  |
| CONOV     |        |       |       |       |       |       |       |        |        |
| COMOX     | 205    | 922,  | 1244  |       |       |       |       |        |        |
|           | 370,   | 9229  | 1200, |       |       |       |       |        |        |
| COMPAN    |        |       |       |       |       |       |       |        |        |
| CUMPAN    | 899,   | JIND  |       |       |       |       |       |        |        |
|           | 0779   |       |       |       |       |       |       |        |        |
| COMPUT    |        | ΜΔΤ   |       |       |       |       |       |        |        |
|           |        | 212,  | 214.  | 216   | 217.  | 210.  | 240.  | 275    | 926.   |
|           | 1202.  | 1204, | 1205. | 1230. | 1284. | 1303  | 2779  | ~ LIJI | 100    |
|           |        | TEONY | 12004 | 12307 | 12041 | 13734 |       |        |        |
|           |        | •     |       |       |       |       |       |        |        |
|           |        |       |       |       |       |       |       |        |        |

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| COPEPUDA       |       |       |       |       |       |        |       |   |
|----------------|-------|-------|-------|-------|-------|--------|-------|---|
| 82, 101,       |       |       |       |       |       |        |       |   |
| 417, 418,      |       |       |       |       |       |        |       |   |
| 519, 571,      | 655,  | 656,  | 758,  | 758,  | 952,  | 1045,  | 1055, |   |
| 1084, 1106,    |       |       |       |       |       |        |       |   |
| CORTEZ ISLAND  |       |       |       |       |       |        |       | • |
| 94, 95,        |       |       |       |       |       |        |       |   |
|                |       |       |       |       |       |        |       |   |
| COWICHAN BAY   |       |       |       |       |       |        |       |   |
| 29, 313,       | 314,  | 854,  | 887,  | 891,  | 903,  | 904,   | 1078, |   |
|                |       |       |       |       |       |        |       |   |
| COWICHAN RIVER | 000   | 000   | 1220  |       |       |        |       |   |
| 304, 888,      | 889,  | 890,  | 1238, |       |       |        |       |   |
| CRABS          |       |       |       |       |       |        |       | 1 |
| 181, 386,      | 433.  | 622.  | 662.  | 675,  | 789.  | 824.   | 825.  |   |
| 826, 827,      |       |       |       |       |       |        |       |   |
| 1016, 1065,    | 1074, | 1128, |       |       |       |        |       |   |
|                |       |       |       |       |       |        |       |   |
| CROFTON        |       |       |       |       |       |        |       |   |
| 298, 1326,     |       |       |       |       |       |        |       |   |
| CRUSTACEA      |       |       |       |       | •     |        |       |   |
| 81, 87,        | 92.   | 93.   | 406.  | 412.  | 492.  | 509.   | 514.  |   |
| 630, 666,      |       |       |       |       |       |        |       |   |
| 1110,          | ·     |       | ·     |       |       |        | ·     |   |
|                |       |       |       |       |       |        |       |   |
| DECAPODA       | _     |       |       |       |       |        |       |   |
| 93, 387,       | 389,  | 412,  | 514,  | 620,  | 630,  | 750,   | 1066, |   |
| 1110,          |       |       |       |       |       |        |       |   |
| DEEP BAY       |       |       |       |       |       |        |       |   |
| 44, 45,        | 115.  | 116.  | 444.  | 1315. | 1402. |        |       |   |
|                | 2227  | ~ /   |       | ,     | 2,02, |        |       |   |
| DEEPWATER BAY  |       |       |       |       |       |        |       |   |
| 76,            |       |       |       |       |       |        |       |   |
|                |       |       |       |       |       |        |       |   |
| DENMAN ISLAND  |       |       |       |       |       |        |       |   |
| 295, 420,      |       |       |       |       |       |        |       |   |
| DEPARTURE BAY  |       |       |       |       |       |        |       |   |
| 17, 61,        | 62,   | 63,   | 64,   | 65,   | 69,   | 71,    | 74,   |   |
| 77, 78,        |       | 86,   | 90,   | 96,   | 100,  | 184,   | 228,  |   |
| 251, 315,      |       | 366,  | 439,  | 444,  | 447,  | 460,   | 474,  |   |
| 490, 496,      |       | 513,  | 556,  | 570,  | 573,  | . 579, | 581,  |   |
| 620, 621,      |       | 689,  | 773,  | 782,  | 787,  | 833,   | 841,  |   |
| 862, 865,      | 883,  | 891,  | 894,  | 897,  | 918,  | 1089,  | 1111, |   |
| 1360,          |       |       |       |       |       |        |       |   |

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|       | DESMIDIEAE                              |       |       |       |              |       |        |        |       |
|-------|---|-------|-------|-------|--------------|-------|--------|--------|-------|
|       | 95,                                     | 696,  |       |       |              |       |        |        |       |
|       | . ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 0,00  |       |       |              |       |        |        |       |
|       | DEVELODMENT                             |       |       |       |              |       |        |        |       |
| -     | DEVELOPMENT                             | 0     | 21    | 2.2   | 2.2          | 41    | 102    | 207    | 200   |
|       | 1,                                      | 9,    | 21,   | 22,   | 33,          | 41,   | 102,   |        | 399,  |
|       | 400,                                    | 459,  | 495,  | 506,  | 554 <b>,</b> | 607,  | 615,   | 622,   | 641,  |
| 5     | 656 <b>,</b>                            | 681,  | 693,  | 757,  | 874,         | 944,  | 1001,  | 1010,  | 1161, |
|       | 1163,                                   | 1174, | 1180, | 1184, | 1194,        | 1197, | 1232,  | 1294,  | 1295, |
| ,     | 1296,                                   | 1297, | 1298, | 1391, |              |       |        |        |       |
| ,     |   | •     |       | ·     |              |       |        |        |       |
|       | DIATOMS                                 |       |       |       |              |       |        |        |       |
|       |   | 432,  | 490,  | 608,  | 609,         | 736,  | 737.   | 1034,  | 1048. |
|       | í <b>,</b>                              | 4329  | 490,  | 000,  | 0099         | 1509  | 1519   | 10,54, | 1040, |
|       |   |       |       |       |              |       |        |        |       |
|       | DINOFLAGELLA                            |       |       |       |              |       |        |        |       |
|       | 993 <b>,</b>                            | 1125, | 1126, |       |              |       |        |        |       |
|       |   |       |       |       |              |       |        |        |       |
|       | DISCOVERY PA                            | SSAGE |       |       |              |       |        |        |       |
|       |   |       | 157.  | 337,  | 829,         | 1083, |        |        |       |
|       | 2.00                                    |       |       |       |              |       |        |        |       |
|       | DISEASE                                 |       |       |       |              |       |        |        |       |
|       |   | 202   | 205   | 204   | 060          | 1017  | 1207   |        |       |
|       | 84,                                     | 285,  | 2900  | 394,  | 900,         | 1017, | 13919  |        |       |
|       |   |       |       |       |              |       |        |        |       |
|       | DISTRIBUTION                            |       |       |       |              |       |        |        |       |
| 10.31 | 7,                                      | 18,   | 37,   | 67,   | 277,         | 315,  | 317,   | 336,   | 388,  |
| ۰.    | 412,                                    | 428,  | 441,  | 461,  | 477,         | 498,  | 509,   | 585,   | 592,  |
|       | 619.                                    | 645,  | 654,  | 679,  | 700,         | 733,  | 736,   | 740,   | 752,  |
| _     |   | 851,  |       | 878,  | 882,         | 996,  | 998,   |        | 1000, |
| 2     | 1003,                                   |       | 1039, |       | 1064,        | 1082, | 1096,  | 1097,  | 1109, |
|       |   |       |       |       |              | 1002, | 10,00, | 10/14  | 11074 |
|       | 1110,                                   | 1203, | 1387, | 1398, | 1406,        |       |        |        |       |
|       |   |       |       |       |              |       |        |        |       |
|       | DIXON ENTERA                            | NCE   |       |       |              |       |        |        |       |
|       | 1202,                                   |       |       |       |              |       |        |        |       |
|       |   |       |       |       |              |       |        |        |       |
|       | DODD NARROWS                            |       |       |       |              |       |        |        |       |
|       | 379,                                    |       |       |       |              |       |        |        |       |
| 1     | 5179                                    |       |       |       |              |       |        |        |       |
|       | DOCETCH                                 |       |       |       |              |       |        |        |       |
|       | DOGFISH                                 |       | 0.0   | 120   | 222          | 250   | 251    | 353    | 402   |
|       | 33,                                     | 44,   | 80,   | 139,  | 333,         | 350,  | 351,   | 352,   | 403,  |
| 1     | 404,                                    | 424,  | 495,  | 588,  |              | 778,  | 842,   | 855,   | 880,  |
|       | 1109,                                   | 1306, | 1307, | 1308, | 1309,        | 1310, | 1311,  | 1313,  | 1314, |
|       | 1315,                                   | 1316, | 1317, | 1318, | 1319,        | 1320, | 1320,  | 1321,  | 1321, |
|       | 1322,                                   | 1323, | 1324, | 1325, | 1326,        | 1328, | 1329,  | 1330,  | 1331, |
|       | 1332,                                   | 1333, | 1334, | 1335, | 1336,        | 1337, |        | 1340,  | 1341, |
|       | 1342,                                   | 1343, | 1344, | 1345, | 1346,        | 1347, |        | 1349,  | 1350, |
|       | 1351,                                   | 1352, | 1353, |       | 1356,        | 1357, |        | 1360,  | 1361, |
|       |   |       |       |       |              |       |        |        |       |
|       | 1362,                                   | 1363, | 1364, |       | 1366,        |       |        | 1369,  | 1370, |
|       | 1371,                                   | -     | 1373, | 1374, | 1375,        | 13/0, | 1377,  | 1378,  | 1379, |
|       | 1380,                                   | 1389, |       |       |              |       |        |        |       |
|       |   |       |       |       |              |       |        |        |       |
| 1     | DREDGING                                |       |       |       |              |       |        |        |       |
|       | 213,                                    | 214.  | 216.  | 217,  | 677,         | 786,  | 829,   | 1164,  |       |
|       |   |       |       |       |              |       |        |        |       |

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DUNSMUIR ISLAND 460, EAST SOUND 24, 443, 1022, 1033, 1035, ECHINODERMS 511, 994, 1049, 1053, 1406, 90, ECOLOGY 508, 509, 335, 339, 340, 341, 342, 423, 438, 510, 579, 580, 582, 636, . 662, 718, 726, 782, 999, 825, 1018, 1019, 1045, 1047, 1058, ENGLISH BAY 231, 292, 486, 512, 991, 1231, ESCAPEMENTS 673, 930, 1238, 1410, 103, ESTUARY 309, 292, 331, 334, 336, 339, .340, 341, 342, 438, 686, 1398, EULACHON 48, 303, 373, 1020, FALSE BAY 726, 381, 636, FALSE NARROWS 782, FAUNA 213, 214, 344, 65, 67, 99, 212, 216, 217, 465, 534, 583, 590, 649, 780, 786, 928, 380, 1014, 1064, FECUNDITY 444, 411, 424, 716, 1353, 405, FISHERIES 28, 33, 43, 12, 14, 15, 15, 13, 13, 51, 52, 115, 116, 118, 139, 147, 169, 180, 224, 225, 226, 227, 234, 197, 198, 200, 201, 293, 246, 248, 249, 279, 280, 286, 286, 303, 324, 349, 354, 360, 480, 312, 323, 310, 311, 575, 607, 613, 485, 495, 516, 551, 551, 562, 754, 694, 712, 753, 627, 628, 661, 664, 692, 814, 837, 838, 875. .876, 778, 783, 798, 811, 935, 942, 943, 946, 948, 949, 949, 950, 921, 966, 979, 1081, 1109, 955, 991, 1060, 1067, 950, 1156, 1161, 1162, 1163, 1168, 1174, 1179, 1191, 1196,

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| FISHERIES<br>1200,<br>1285,<br>1325,  | 1286,  | 1216,<br>1287,   | 1222,<br>1299,<br>1359,                                       | 1226,<br>1306,<br>1390,  | 1232,<br>1307,<br>1400,                | 1239,<br>1308,<br>1401,   | 1251,<br>1311,<br>1402,              | 1281,<br>1320,  |
|---|--|--|---|--|--|---|--------------------------------------|---|
|   | * 2 4 4 9  | * ~ ~ ~ *  |   | 1 3 7 0 4  | 1,00,                                  |   | 2.027                                |   |
| FISHES<br>70,<br>419,<br>624,<br>797,<br>1304,  | 84,<br>432,<br>637,<br>830,<br>1305,   | 434,<br>677,<br>834,   | 99,<br>439,<br>683,<br>968,<br>1312,                          | 450,   | 283,<br>496,<br>689,<br>1042,<br>1338, | 588,<br>717,  | 612,                                 | 418,<br>623,<br>771,<br>1087,   |
| FISHING   |  |  |   |  |  |   |                                      |   |
| 140,<br>151,<br>872,<br>1213,<br>1236,  | 1158,<br>1214,   | 153,<br>1187,  | 156,<br>1198,<br>1217,  |  | 175,<br>1203,<br>1217,                 | 280,<br>1211,<br>1218,  | 486,<br>1212,<br>1220,               | 150,<br>826,<br>1212,<br>1233,<br>1377,                                 |
| FISHWAYS  |  |  |   |  |  |   |                                      |   |
| 522,  | 760,   | 1157,  | 1166,   | 1169,  | 1196,                                  | 1247,   |                                      |   |
| FITZ HUGH SO<br>450,  | DUND<br>899,   |  |   |  |  |   |                                      |   |
| FJORD 30,   | 406,   | 765,   |   | ·  |  |   |                                      |   |
| FOOD  |  |  |   |  |  |   | · .                                  |   |
| 24,<br>208,<br>474,<br>782,<br>1085,  | 846,   | 210,<br>588,<br>898,   | 58,<br>305,<br>634,<br>902,<br>1322,                          | 58,<br>306,<br>701,<br>903,<br>1409,                                   |  | 308,<br>703,  | 206,<br>432,<br>704,<br>1048,        | 207,<br>467,<br>781,<br>1059,   |
| FRASER RIVE   | R  |  |   |  |  |   |                                      |   |
| 13,<br>233,<br>375,<br>528,<br>538,<br>601,<br>674,<br>817,<br>1099,<br>1164,<br>1227,<br>1407, | 14,<br>244,<br>407,<br>529,<br>539,<br>602,<br>691,<br>842,<br>1100,<br>1171,<br>1231, | 286,<br>436,<br>530,<br>553,<br>603,<br>720,<br>871,<br>1109,<br>1178, | 288,<br>464,<br>531,<br>554,<br>604,<br>723,<br>896,<br>1123, | 292,<br>469,<br>532,<br>595,<br>605,<br>724,<br>924,<br>1152,<br>1182, | 303,<br>494,<br>533,                   | 307,<br>524,<br>535,<br>597,<br>638,<br>774,<br>1080,<br>1159,<br>1192, | 345,<br>526,<br>536,<br>599,<br>648, | 363,<br>527,<br>537,<br>600,<br>673,<br>810,<br>1085,<br>1164,<br>1224, |
| FRIDAY HARB   |  | _  |   |  | -                                      |   |                                      |   |
| 96,<br>654,<br>776,   | 655,   | 657,   | 567,<br>658,<br>812,  |  | 642,<br>736,<br>824,                   |   | 739,                                 | 775,  |

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|        |              |              |              | - 48         | -            |              |              |              |              |  |
|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
|        |              | UR (CO       |              |              |              |              |              |              |              |  |
| FKIDA  | 5            | 1027,        |              |              |              |              |              |              |              |  |
|        | 10237        | 1021,        | 1051,        |              | *            |              |              |              |              |  |
| FRY    |              |              |              |              |              |              |              |              |              |  |
|        | 16,          | 338,         | 438,         | 810,         | 923,         | 926,         | 1091,        | 1092,        | 1385,        |  |
|        | 1403,        |              |              |              |              |              |              |              |              |  |
|        | RD HARB      | 010          |              |              |              |              |              |              |              |  |
| FULFU  |              | 865,         |              |              |              |              |              | 1            |              |  |
|        | ,            |              |              |              |              |              |              |              |              |  |
| GABR I | OLA ISL      | AND          |              |              |              |              |              |              |              |  |
| s.     | 95,          | 565,         |              |              |              |              |              | . ,          |              |  |
|        |              |              |              |              |              |              |              |              |              |  |
| GANGE  | S HARBO      |              |              |              |              |              |              |              |              |  |
|        | 398,         | 1401,        |              |              |              |              |              |              |              |  |
| GEAR   |              |              |              |              |              |              |              |              |              |  |
|        | 873,         | 967,         | 1212,        | •            |              |              |              |              |              |  |
|        | •            | •            | ,            |              |              |              |              |              |              |  |
| GEORG  | IA STRA      |              |              |              |              |              |              |              |              |  |
|        | 7,           | 10,          | 25,          | 51,          | 55,          | 56,          |              | 58,          | 64,          |  |
|        | 65,          | •            | 70,          | 73,          | 79,          | 81,          |              | 96,          | 98,          |  |
|        | 104,         | 105,         | 109,         | 111,         | 112,         | 115,         | 116,         | 117,         | . 118,       |  |
|        | 121,         | 122,         | 173,         | 178,         | 186,         | 187,         | 191,         | 203,         | 204,         |  |
|        | 205,<br>236, | 206,<br>237, | 207,<br>239, | 208,<br>243, | 217,         | 222,         | 224,         | 227,         | 234,         |  |
|        | 290,         | 295,         |              | 299,         | 252,<br>305, | 253,<br>306, | 277,<br>307, | 279,<br>308, | 286,<br>317, |  |
|        | 335,         | 350,         | 351,         | 352,         | 353,         | 361,         | 363,         | 370,         | 372,         |  |
|        | 374,         |              | 376,         | 388,         | 390,         | 391,         | 395,         | 396,         | 397,         |  |
|        | 398,         | 399,         | 400,         | 402,         | 403,         | 404,         |              | 411,         | 413,         |  |
|        | 424,         | 428,         | 435,         | 449,         | 451,         | 454,         |              | 464,         | 467,         |  |
|        | 473,         | 479,         | 480,         | 480,         | 486,         | 487,         | 487,         | 488,         | 488,         |  |
|        | 494,         | 497,         | 513,         | 517,         | 517,         | 519,         | 553,         | 564,         | 565,         |  |
|        | 573,         | 574,         | 578,         | 579,         | 580,         | 581,         | 582,         | 605,         | 647,         |  |
|        | 648,         | 673,         | 674,         | 677,         | 719,         | 798,         | 798,         | 799,         | 803,         |  |
|        | 804,         | 805,         | 808,         | 815,         |              | 829,         | 842,         | 843,         | 844,         |  |
|        | 845,<br>864, | 848,<br>870, | 855,<br>871, | 856,<br>872, | 857,<br>875, | 858,<br>876, | 859,<br>877, | 861,<br>881, | 863,         |  |
|        | 885,         | 886.         | 889,         | 893,         | 898,         | 901,         | 902,         | 903,         | 884,<br>913, |  |
|        | 914,         | 917,         | 919,         | 922,         | 938,         | 939,         | 940,         | 944,         | 951,         |  |
|        | 952,         | 965,         | 966,         | 971,         | 972,         | 976,         | 977,         | 978,         | 979,         |  |
|        | 980,         | 982,         | 993,         | 996,         | 1005,        | 1052,        | 1056,        | 1068,        | 1071,        |  |
|        | 1076,        | 1077,        | 1079,        | 1080,        | 1081,        | 1082,        | 1083,        | 1085,        | 1086,        |  |
|        | 1099,        | 1100,        | 1106,        | 1116,        | 1117,        | 1118,        | .1119,       | 1120,        | 1122,        |  |
|        | 1130,        | 1130,        | 1132,        | 1133,        | 1189,        | 1197,        | 1197,        | 1202,        | 1202,        |  |
|        | 1203,        | 1203,        | 1212,        | 1212,        | 1213,        | 1213,        | 1227,        | 1228,        | 1231,        |  |
|        | 1234,        | 1235,        | 1239,        | 1243,        | 1283,        | 1294,        | 1295,        | 1296,        | 1297,        |  |
|        | 1298,        | 1300,        | 1302,        | 1303,        | 1315,        | 1346,        | 1349,        | 1358,        | 1360,        |  |
|        | 1363,        | 1364,        | .1365,       | 1366,        | 1367,        | 1387,        | 1395,        | 1396,        | 1404,        |  |
|        | 1406,        | 1408,        | 1409,        | 1410,        | 7117,        |              |              |              |              |  |

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|                     |       |       | - 49  | -     |       |       |       |     |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-----|
| GILLNET             |       |       |       |       |       |       |       |     |
| 13,                 | 14,   |       | 70,   |       |       |       |       |     |
| 651,                | 652,  | 1023, |       | 1144, | 1145, |       | 1147, |     |
|                     |       | 1211, |       |       | 1214, | 1215, | 1216, | 121 |
| 1219,               | 1320, | 1321, | 1353, | 1401, |       |       |       |     |
| GODSE ISLANDS       |       |       |       |       |       |       |       |     |
| 899,                |       |       |       |       |       |       |       |     |
| GORDEN BAY          |       |       |       |       |       |       |       |     |
| 729,                | 730,  |       |       |       |       |       |       |     |
| GRANITE BAY         |       |       |       |       |       |       |       |     |
|                     | 900,  |       |       |       |       |       |       |     |
| CREAT CENTRAL       |       |       |       |       |       |       |       |     |
| GREAT CENTRAL 1160, |       |       |       |       |       |       |       |     |
|                     |       |       |       |       | :.    |       |       |     |
| GRILSE 290,         |       |       |       |       |       |       |       |     |
| 290,                |       |       |       |       |       |       |       |     |
| GROUNDFISH          |       |       |       |       |       |       |       |     |
| 21,                 | 22,   |       | 38,   | 38,   | 51,   | 80,   | 84,   | 11  |
| 118,                | 139,  | 159,  | 160,  | 161,  | 162,  | 163,  | 164,  | 16  |
| 166,                | 167,  | 168,  | 170,  | 171,  | 172,  | 199,  | 225,  | 22  |
| 227,                | 234,  | 278,  | 279,  | 280,  | 293,  | 310,  | 311,  | 31  |
| 332,                | 349,  | 350,  | 351,  | 352,  | 353,  | 363,  | 391,  | 39  |
| 395,                | 397,  | 398,  | 399,  | 400,  | 401,  | 402,  | 402,  | 41  |
| 414,                | 421,  | 422,  | 423,  | 434,  | 443,  | 479,  | 485,  | 48  |
| 488,                | 560,  | 564,  | 778,  | 797,  | 798,  | 843,  | 844,  | .84 |
| 858,                | 859,  | 866,  | 867,  | 868,  | 869,  | 872,  | 874,  | 87  |
| 877,                | 880,  | 881,  | 914,  | 915,  | 935,  | 942,  | 943,  | 94  |
| 945,                | 946,  | 947,  | 948,  | 949,  | 949,  | 950,  | 950,  | 95  |
| 955,                | 962,  |       |       | 965,  | 966,  | 979,  | 1005, | 102 |
|                     | 1059, | 1071, | 1109, | 1208, | 1308, | 1329, | 1331, | 133 |
|                     | 1339, | 1340, |       | 1341, | 1341, | 1342, | 1342, | 134 |
|                     | 1354, | 1354, | 1355, | 1362, | 1363, | 1364, | 1365, | 136 |
|                     | 1377, | 1378, | 1379, | 1380, | 1389, | 1392, | 1392, | 140 |
| GROWTH              |       |       |       |       |       |       |       |     |
| 20,                 | 76,   | 332,  | 386,  | 388,  | 395,  | 413,  | 421,  | 42  |
| 433,                | 434,  | 437,  | 463,  | 507,  | 569,  | 589,  | 645,  | 73  |
| 774,                | 781,  | 782,  | 802,  | 843,  | 844,  | 867,  | 868,  | 87  |
| 881,                | 883,  | 884,  | 898,  | 910,  | 973,  | 1012, | 1015, | 104 |
|                     | 1353, | -     | -     | -     |       |       |       |     |
| GULF ALASKA         |       |       |       |       |       |       |       |     |
| 218,                | 232,  | 240,  | 287,  |       |       |       |       |     |
|                     |       |       |       |       |       |       |       |     |
| GULF ISLANDS        | 207   | 262   | 405   | ( ) ) | 1202  | 12//  | 1224  | 140 |
| 109,                | 297,  | 363,  | 605,  | 633,  | 1203, | 1240, | 1336, | 140 |
|                     |       |       |       |       |       |       |       |     |
|                     |       |       |       |       |       |       |       |     |
|                     |       |       |       |       |       |       |       |     |

| HAKE 1361,  |   |   |  |  |   |   |   |   |
|---|---|---|--|--|---|---|---|---|
| HALIBUT 32,   | 753,  | 1211,   | ·  |  |   |   |   |   |
| HAMMOND BAY<br>447,   | 1093,   |   |  |  |   | •   |   |   |
| HAND LINING<br>115,   | 479,  | 488,  | 677,   |  |   |   |   |   |
| HARBOUR   |   |   |  |  |   |   |   |   |
| 42,   | 196,<br>736,<br>1006,   | 458,<br>786,<br>1009,   | 789,   | 796,   | 813,  | 824,  | 850,  | 730,<br>853,  |
| HATCHERIES  |   |   |  |  |   |   |   |   |
|   | 113,<br>1303,   | 241,  | 245;   | 246,   | 247,  | 248,  | 359,  | 839,  |
| HECATE STRAI  |   |   |  |  |   |   |   |   |
| 51,   | 111,  | 112,  | 118,   | 286,   | 296,  | 297,  | 361,  | 381,  |
| 424,  | 487,<br>1066,   | 495,  | 1202   |  | 842,  | 872,  | 965,<br>1346,   |   |
| 1372,   | 1374,   | 1375,   | 1376,  | 1377,  | 1520,   | 1 7 2 1 4   | 1940,   | 1554,   |
| HELIOZOA  |   |   |  |  |   |   |   |   |
|   |   |   |  |  |   |   |   |   |
| 94,   | 818,  | 1093,   |  |  |   |   |   |   |
|   | 818,  | 1093,   |  | x  |   |   |   |   |
| HENRY BAY   | 818,<br>366,  |   |  | x  |   |   |   |   |
| HENRY BAY<br>295,   |   |   | •  | x .  |   |   |   |   |
| HENRY BAY   |   |   | 56,  | 60,  | 78,   | 102,  | 114,  | 121,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,   | 366,<br>54,<br>123,   | 55,<br>124,   | 125,   | 126,   | 127,  | 102,<br>128,  | 129,  | 130,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,   | 366,<br>54,<br>123,<br>132,   | 55,<br>124,<br>133,   | 125,<br>134,   | 126,<br>135,   | 127,<br>136,  | 128,<br>137,  | 129,<br>140,  | 130,<br>141,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,   | 366,<br>54,<br>123,<br>132,<br>143,   | 55,<br>124,<br>133,<br>144,   | 125,<br>134,<br>145,   | 126,<br>135,<br>146,   | 127,<br>136,<br>147,  | 128,<br>137,<br>148,  | 129,<br>140,<br>149,  | 130,<br>141,<br>150,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,   | 366,<br>54,<br>123,<br>132,   | 55,<br>124,<br>133,   | 125,<br>134,   | 126,<br>135,   | 127,<br>136,  | 128,<br>137,  | 129,<br>140,  | 130,<br>141,<br>150,<br>184,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,  | 128,<br>137,<br>148,<br>157,<br>256,<br>265,  | 129,<br>140,<br>149,<br>158,<br>257,<br>266,  | 130,<br>141,<br>150,<br>184,<br>258,<br>267,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,  | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,  | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,  | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,  | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,  | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,  | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,  | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,  | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,  | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,  | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,  | 129,<br>140,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,  | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,  |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,<br>837,                                   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,<br>838,                                   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,<br>864,                                   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,<br>865,                                   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,<br>870,                                   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,<br>883,                                    | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,<br>897,                                    | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,<br>912,                                    | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,<br>913,                                    |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,<br>837,<br>916,                           | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,<br>838,<br>917,                           | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,<br>864,<br>918,                           | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,<br>865,<br>919,                           | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,<br>870,<br>921,                           | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,<br>883,<br>956,                            | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,<br>897,<br>957,                            | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,<br>912,<br>958,                            | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,<br>913,<br>959,                            |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,<br>837,                                   | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,<br>838,                                   | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,<br>864,                                   | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,<br>865,                                   | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,<br>870,                                   | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,<br>883,                                    | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,<br>897,                                    | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,<br>912,                                    | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,<br>913,                                    |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,<br>837,<br>916,<br>960,<br>1079,<br>1121, | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,<br>838,<br>917,<br>961,<br>1112,<br>1122, | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,<br>864,<br>918,<br>974,<br>1113,<br>1205, | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,<br>865,<br>919,<br>981,<br>1114,<br>1209, | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,<br>870,<br>921,<br>982,<br>1116,<br>1234, | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,<br>883,<br>956,<br>1051,<br>1117,<br>1235, | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,<br>897,<br>957,<br>1075,<br>1118,<br>1300, | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,<br>912,<br>958,<br>1076,<br>1119,<br>1303, | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,<br>913,<br>959,<br>1077,<br>1120,<br>1319, |
| HENRY BAY<br>295,<br>HERRING<br>47,<br>122,<br>131,<br>142,<br>151,<br>197,<br>259,<br>268,<br>325,<br>447,<br>625,<br>793,<br>837,<br>916,<br>960,<br>1079,          | 366,<br>54,<br>123,<br>132,<br>143,<br>152,<br>198,<br>260,<br>269,<br>326,<br>464,<br>626,<br>799,<br>838,<br>917,<br>961,<br>1112,          | 55,<br>124,<br>133,<br>144,<br>153,<br>203,<br>261,<br>270,<br>327,<br>470,<br>633,<br>800,<br>864,<br>918,<br>974,<br>1113,          | 125,<br>134,<br>145,<br>154,<br>251,<br>262,<br>271,<br>354,<br>471,<br>693,<br>801,<br>865,<br>919,<br>981,<br>1114,          | 126,<br>135,<br>146,<br>155,<br>254,<br>263,<br>272,<br>375,<br>474,<br>753,<br>802,<br>870,<br>921,<br>982,<br>1116,          | 127,<br>136,<br>147,<br>156,<br>255,<br>264,<br>273,<br>385,<br>482,<br>754,<br>803,<br>883,<br>956,<br>1051,<br>1117,          | 128,<br>137,<br>148,<br>157,<br>256,<br>265,<br>274,<br>410,<br>562,<br>790,<br>804,<br>897,<br>957,<br>1075,<br>1118,          | 129,<br>140,<br>149,<br>158,<br>257,<br>266,<br>275,<br>442,<br>588,<br>791,<br>805,<br>912,<br>958,<br>1076,<br>1119,          | 130,<br>141,<br>150,<br>184,<br>258,<br>267,<br>290,<br>444,<br>621,<br>792,<br>816,<br>913,<br>959,<br>1077,<br>1120,          |

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|     | LARVAE<br>87, | 205   | 206,         | 207   | 208,         | 200   | 210   | 305,     | 306,  |
|-----|---------------|-------|--------------|-------|--------------|-------|-------|----------|-------|
|     | 307,          |       | 375,         |       |              | 462,  | -     | 581,     | 622,  |
| 6   |               |       | 853,         |       | 1012,        |       |       | 1409,    | 0229  |
|     | 0507          | 0217  |              |       | 2012)        | 2011  |       | 21077    |       |
|     | LENGTHS       |       |              |       |              |       |       |          |       |
|     | 13,           | 14,   |              |       | 201,         | 401,  | 403,  | 411,     | 930,  |
|     | 947,          | 965,  | 1284,        | 1333, | 1334,        |       |       |          |       |
|     | LIFE HISTORY  | ,     |              |       |              |       |       |          |       |
|     | 373,          |       | 379,         | 526,  | 527,         | 528,  | 529,  | 530,     | 531,  |
|     |               |       | 535,         | •     |              | 538,  |       |          | 541,  |
|     |               |       | 544,         |       |              | 547,  |       |          | 550,  |
|     |               |       | 596,         |       |              | 600,  |       |          | 603,  |
|     |               |       | 655,         |       |              | 698,  |       |          | 826,  |
|     |               | 828,  |              |       | 1092,        |       |       | 1360,    | 1399, |
|     |               |       | •            |       |              | •     |       | <b>,</b> |       |
|     | LINE FISHERY  |       |              |       |              |       |       |          |       |
|     | 70,           |       |              |       | 293,         |       |       | 875,     | 1143, |
|     | 1144,         | 1145, | 1146,        | 1147, | 1214,        | 1215, | 1217, |          |       |
|     | LINGCOD       |       |              |       |              |       |       |          |       |
|     | 199 <b>,</b>  | 391,  | 411.         | 479.  | 488,         | 843,  | 844,  | 845,     | 866,  |
|     | 867,          |       | 869,         |       |              | 0409  | 0449  | 0404     | 000,  |
| •   |               | 000,  | 0077         | 0151  | 10274        |       |       |          |       |
| · · | LOBSTER       |       |              |       |              |       |       |          |       |
| a   | 75,           | 223,  |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     | LONG LINE     |       | ( 70         |       |              |       |       |          |       |
|     | 218,          | 278,  | 479 <b>,</b> | 488,  | 1400,        |       |       |          |       |
|     | LOUVERS       |       |              |       |              |       |       |          |       |
|     | 760,          | 1247, |              |       |              |       |       |          |       |
|     | 100,          | 12719 |              |       |              |       |       |          |       |
|     | MACKEREL      | ,     |              |       |              |       |       |          |       |
|     | 435,          | 857,  |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     | MALASPINA IN  | ILET  |              |       |              |       |       |          |       |
|     | 456,          |       |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     | MAMMALS       | 105   | 104          | 452   | 704          | 0.20  | 100/  |          |       |
|     | 429           | 100,  | 190,         | 4231  | 796,         | 830,  | 1086, |          |       |
|     | MANAGEMENT    |       |              |       |              |       |       |          |       |
|     |               | 665.  | 792,         | 1185. | 1186.        |       |       |          |       |
|     | 1,            | 0071  | 1721         | 11077 | 11007        |       |       |          |       |
|     | MASSET INLEY  | Г     |              |       |              |       |       |          |       |
|     | 478,          |       |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     | MATURITY      |       |              |       |              |       |       |          |       |
|     | 244,          | 424,  | 437,         | 457,  | 524 <b>,</b> | 894,  | 1353, |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |
|     |               |       |              |       |              |       |       |          |       |

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| •<br>•  |                                      |                      | - 54                                 | -                    |                      |              |                      |              |
|---|--------------------------------------|----------------------|--------------------------------------|----------------------|----------------------|--------------|----------------------|--------------|
| MCCLINTON CRE<br>288,                         |                                      |                      |                                      |                      |                      |              |                      |              |
| MIDWATER TRAM<br>41,<br>1374,                 | 102,                                 |                      | 204,                                 | 206,                 | 277,                 | 1361,        | 1371,                | 1372,        |
|   | 191,<br>573,<br>877,                 | 229,<br>638,<br>880, |                                      | 318,<br>669,         | 337,<br>679,         | 340,<br>723, | 453,<br>793,         | 523,<br>864, |
| MILLBANK SOUN<br>899,                         | ID                                   |                      |                                      |                      |                      |              |                      |              |
| MIRACLE BEACH<br>815,                         | 1                                    |                      |                                      |                      |                      |              |                      |              |
|   |                                      |                      | 458,<br>1057,                        |                      |                      |              |                      | •            |
|   |                                      |                      | 294,<br>885,                         |                      |                      | 422,         | 463,                 | 471,         |
| MUDGE ISLAND 61,                              | 62,                                  | 63,                  | 64,                                  |                      |                      |              |                      |              |
| NANAIMO<br>6,<br>65,<br>378,<br>573,<br>1061, | 94,<br>379,<br>583,                  | 101,<br>393,<br>620, | 35,<br>175,<br>398,<br>663,          | 228,<br>399,         | 294,<br>502,         | 309,<br>523, | 335,<br>567,         | 364,<br>571, |
| 447,  | 474,                                 |                      | 115,<br>621,<br>1401,                |                      |                      |              |                      |              |
| 528,<br>538,<br>547,                          | 104,<br>529,<br>539,<br>548,<br>602, | 530,<br>540,<br>549, | 106,<br>531,<br>541,<br>550,<br>604, | 532,<br>542,<br>595, | 533,<br>543,<br>596, | 535,         | 526,<br>545,<br>599, | 537,<br>546, |

|   | NEMATODA<br>385,  | 680,                                | 684,  | 1088,   | 1089,                | 1397,                                 |                                       |                                       |                                       |
|---|---|-------------------------------------|---|---|----------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| - | NILE CREEK<br>476,  | 923,                                | 925,  | 926,  |                      |                                       |                                       |                                       |                                       |
| - | NIMPKISH RIV<br>1165,                                     | ËR                                  |   |   |                      |                                       |                                       |                                       |                                       |
|   | NUDIBRANCHS<br>489,<br>1098,                              | 614,                                | 721,  | 722,  | 1029,                | 1030,                                 | 1094,                                 | 1095,                                 | 1097,                                 |
|   | 775,  | 57,<br>292,<br>370,<br>611,         | TIONS<br>67,<br>302,<br>392,<br>617,<br>801,<br>1292, | 178,<br>308,<br>400,<br>647,<br>878,<br>1395, | 406,<br>648,         | 236,<br>317,<br>428,<br>674,<br>954,  | 319,<br>473,<br>677,                  | 238,<br>331,<br>475,<br>686,<br>1082, | 239,<br>341,<br>510,<br>768,<br>1083, |
|   | OKEOVER INLE<br>456,                                      | т                                   |   |   |                      |                                       |                                       |                                       |                                       |
| 9 | ORCAS ISLAND<br>24,                                       | 443,                                | 610,  | 1022,   |                      |                                       |                                       |                                       |                                       |
| - | OSMERIDAE<br>179,   | 372,                                | 377,  | 772,  |                      |                                       |                                       |                                       |                                       |
|   | OSTRACODA<br>25,  | 85,                                 | 440,  | 441,  | 1019,                |                                       |                                       |                                       |                                       |
|   | OTTER TRAWL<br>115,<br>170,<br>861,<br>1306,              | 115,<br>171,<br>873,                | 116,<br>172,<br>874,                                  | 377,  | 160,<br>487,<br>877, | 563,                                  | 564,                                  | 798,                                  | 168,<br>845,<br>1071,                 |
|   | OYSTERS<br>31,<br>343,<br>850,<br>1027,                   | 178,<br>356,<br>851,<br>1048,       | 193,<br>420,<br>852,<br>1069,                         | 194,<br>462,<br>853,<br>1104,                 | 215,<br>559,<br>892, | 295,<br>745,<br>895,                  |                                       | 302,<br>748,<br>909,                  | 319,<br>785,<br>911,                  |
|   | PARASITES<br>98,<br>283,<br>436,<br>670,<br>689,<br>1397, | 99,<br>365,<br>437,<br>671,<br>841, | 138,<br>385,<br>439,<br>672,<br>968,                  | 192,<br>414,<br>456,<br>680,<br>1087,         | 464,                 | 277,<br>414,<br>513,<br>682,<br>1089, | 281,<br>416,<br>623,<br>683,<br>1342, | 281,<br>420,<br>624,<br>684,<br>1394, | 282,<br>436,<br>663,<br>685,<br>1394, |
|   |   |                                     |   |   |                      |                                       |                                       |                                       |                                       |

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PARASITIC COPEPODS 415, 82, 101, 211, 211, 215, 382. 416, 418, 419. 450, 466, 571, 758, 1084, PARKSVILLE 115, 116, PARRY BAY 620, PENDER HARBOUR 70, 474, 690, 729, 730. 732. 1078, 1267, PENDRELL SOUND 302; 335, 745, 319, 364, 909, 1104, 299, PHILLIPS ARM 252, 253, PHÓLIDAE 👘 466, PHORONIDAE 1037, PHYTOPLANKTON 647, 648, 1033, 1035, 1082, 1083, 86, PILCHARD 1078, 48, 1060, PINK 2, 16, 50, 19, 40. 76, 104, 105, 120, 186, 187, 139, 177, 180, 191; 219, 220, 221. 229, 232, 240, 252, 253, 276, 281, 282, 287, 304, 345, 288, 291, 330, 337, 365, 383. 384. 408, 445, 457, 463, 485, 525, 552. 407, 605, 681, 638, 672, 673, 679, 682, 685, 691, 692, 741, 716, 742, 755, 756, 778, 814, 817. 831, 924, 925, 882, 896, 900, 923, 862, 905, 925, 930, 995, 1023, 1070, 1090, 1091, 1101, 1123, 1152, 1152, 1159, 1162, 1165, 1167, 1172, 1186, 1188. 1190, 1193, 1199, 1200, 1210, 1216, 1229, 1231. 1239, 1243. 1250, 1257, 1291, 1243, 1244, 1254, 1266, 1289, 1336, 1374, 1375, 1376, 1382, 1383, 1384, 1388, PIPER'S LAGOON 63, 61, 62, PLANKTON 57, 63, 427. 428. 440, 441, 462. 510. 609. 736, 806, 878, 1019, 630, 654, 1046,

| POLLUTION    |              |            |              |            |              |            |              |              |
|--------------|--------------|------------|--------------|------------|--------------|------------|--------------|--------------|
|              | 320,         | 321,       | 331,         | 823,       | 1032,        | 1130,      | 1131,        | 1191,        |
|              |              |            |              |            |              |            |              |              |
| POLYCHAETA   | 25           | <i>(</i> ) | ( )          | ( )        |              | 0.0        | 24.0         | 270          |
| 6,           | 35,          | 61,<br>201 | 62,          | 63,<br>(03 | 6 <b>4</b> , | 89,<br>400 | 368,<br>400  | 378,         |
| 501,         | 380,<br>502, | 502.       | 570.         | 4931       | 4901         | 734        | 725          | 913          |
| 986,         | 987,         | 990.       | 1007,        | 1036.      | 1061.        | 1062       | 1063.        | 1327,        |
| , juu,       | <i>707</i>   | ,,,,,,     | 1007,        | 1050,      | 1001,        | 1002,      | 1000         | 17219        |
| POPULATIONS  |              |            |              |            |              |            |              |              |
| 114,         | 195,         | 254,       | 325,         | 445,       | 447,         | 470,       | 471,         | 589,         |
| 698,         | 755,         | 756,       | 791,         | 791,       | 800,         | 817,       | 831,         | 913,         |
| 957 <b>,</b> | 958,         | 974,       | 1050,        | 1113,      | 1116,        |            |              |              |
| PORT MOODY   |              |            |              |            |              |            |              |              |
| 475,         |              |            |              |            |              |            |              |              |
|              |              |            |              |            |              |            |              |              |
| PORT RENFRE  | W            |            |              |            |              |            |              |              |
| 477,         | 1058,        |            |              |            |              |            |              |              |
|              |              |            |              |            |              |            |              |              |
| PRAWN        | 175,         | 515        | 680          | 001        |              |            |              |              |
| 110,         | 1139         | 212,       | 000,         | 7719       |              |            |              |              |
| PREDATION    |              |            |              |            |              |            |              |              |
| 246,         | 426,         | 1336,      | 1346,        | 1361,      |              |            |              |              |
|              |              |            |              |            |              |            | ·            |              |
| PRINCE RUPE  |              | 000        | o / <b>7</b> |            | 070          |            |              |              |
| 111,<br>979, | 827,         | 903,       | 947,         | 941,       | 972,         | 976,       | 977,         | 978,         |
| 717,         |              |            |              |            |              |            |              |              |
| PRODUCTION   |              |            |              |            |              |            |              |              |
| 112,         | 113,         | 135,       | 361,         | 406,       | 451,         | 688,       | 715,         | 718,         |
| 746,         | 874,         |            |              |            |              |            |              |              |
| 1358,        |              |            |              |            |              |            |              |              |
| BBODUCTINIT  | ~            |            |              |            |              |            |              |              |
| PRODUCTIVIT  |              | 102        | 104          | 224        | <b>77</b>    | 720        | 220          | 215          |
| 30,<br>334,  | 336,         | 341,       | 361,         |            | 237,<br>406, |            | 239,<br>460, | 315,         |
| 708,         | 709,         | 710,       |              | 712,       | 714,         | 715,       | 718,         | 688,<br>726, |
| 727,         | 744,         | 759,       | 773,         | 782,       | 933,         | 936,       | .937,        | 938,         |
| 939,         |              |            | 1085,        | 1099,      | 1100,        | 1107,      | 1111,        | 1245,        |
| 1295,        |              |            | 1298,        | 1358,      |              |            | -            |              |
| 00070704     |              |            |              |            |              |            |              |              |
| PROTOZOA     | 663          | 1124,      | 1127         |            |              |            |              |              |
| 97,          | 003,         | 11249      | 1127,        |            |              |            |              |              |
| PUGET SOUND  |              |            |              |            |              |            |              |              |
| 37,          | 112,         | 113,       | 247,         | 248,       | 288,         | 366,       | 368,         | 446,         |
| 558,         | 560,         | 565,       | 568,         | 578,       | 586,         | 590,       | 593,         | 609,         |
| 615,         | 619,         | 623,       | 624,         | 631,       | 645,         | 662,       | 666,         | 671,         |
| 691,         | 723,         | 734,       | 770,         |            | 783,         |            | 789,         | 806,         |
|              | 837,         | 905,       | 986,         | 987,       | 994,         | 997,       | 1003,        | 1007,        |
| 1008,        | 1024,        | 1056,      | 1292,        | 1293,      | 1302,        | 1324,      | 1330,        | 1333,        |

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| -                                    |                                     |                       | - 58                  | -                     |              |              |               |  |  |
|--------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|---------------|--|--|
| PUGET SOUND 1334,                    | (CONT<br>1349,                      |                       |                       |                       |              |              |               |  |  |
| PULP MILLS<br>298,                   | 320,                                | 823,                  | 1130,                 | 1170,                 | 1171,        |              |               |  |  |
| PUNTLEDGE RI<br>1,<br>1180,          | 3,                                  | 760,<br>1237,         |                       |                       | 1163,        | 1169,        | 1176,         | 1180,  |  |
| PYCNOGUNIDA<br>560,                  | 606,                                |                       |                       |                       |              | · .          |               |  |  |
| QUALICUM<br>615,                     | 616,                                |                       |                       |                       |              | ·            |               |  |  |
| QUALICUM BAY<br>815,                 |                                     |                       |                       |                       |              |              |               |  |  |
| QUATSINO<br>523,                     |                                     |                       |                       |                       |              |              |               | • • •  |  |
| QUATSIND SOU<br>576,                 | JND<br>829,                         |                       |                       |                       |              |              |               |  |  |
| 135,<br>149,                         | 55,<br>126,<br>136,<br>150,<br>809, | 127,<br>137,<br>151,  |                       | 130,<br>141,<br>153,  |              |              | 133,          | 124,<br>134,<br>147,<br>568,<br>1117,<br>1371, |  |
| QUEEN CHARLO<br>51,<br>487,<br>1371, | DTTE SD.<br>111,<br>523,<br>1372,   | 112,<br>808,<br>1374, | 118,<br>809,<br>1375, | 252,<br>829,<br>1376, | 253,<br>965, | 296,<br>966, | 361,<br>1329, | 403,<br>1331,                                  |  |
| QUEEN CHARLO<br>44,<br>1378,         |                                     |                       | 112,                  |                       | 803,         | 805,         | 966,          | 1122,  |  |
| REFUGE COVE 364,                     |                                     |                       |                       |                       |              |              |               |  |  |
| RHIZOPODA<br>94,                     | 818,                                |                       |                       |                       |              |              |               |  |  |
| 528,<br>538,                         | 104,<br>529,                        |                       | 531,<br>541,          |                       | 533,<br>543, | 535,<br>544, | 545,          | 537,<br>546,                                   |  |

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and the state

RIVERS INLET (CONT'D) 599, 600, 601, 602, 603, 604, 618, 778, 796, 1109, 1263, ROBERTS BANK 395, ROBERTSON CREEK. 288, 338, 760, 1132, 1247, ROBSONS BITE 187, ROSEWALL CREEK 348, SAANICH ARM 865, SAANICH INLET 202, 204, 209, 235, 30, 53, 210, 238, 316, 448, 474, 617, 620, 903, 954, 1078, 1107, 366, 1231, 1246, SABLEFISH 963, 278, 394, 421, 422, 962, 964, SALINITY 22, 400, 477, 21. 693, 801, 840, 1038, 1083, 1391, SALMON BANKS 191, SALMON RIVER 740, 1155, SAN JUAN ARCHIPELAGO 608, 677, 734, 737, 752, 812, 1002, 493, 583, 1056, 1302, SAN JUAN ISLANDS 414, 23. 40, 592, 642, 696, 636, 699. 739. 763, 870, SCALE STUDY 19, 73, 140, 218, 362, 383, 384, 678, 901. 929, 1102, 1115, 1199, 3000, SCALLOPS 296, 297, 413, 808, 932,

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| SCULPIN<br>374,                       | 465,                   |                     |  |                |                       |   |       |   |
|---------------------------------------|------------------------|---------------------|--|----------------|-----------------------|---|-------|---|
| SÉAL ISLAND<br>460,<br>931,           | 708,                   | 709,                | 710,                                   | 711,           | 714,                  | 715,                                    | 744,  | 894,                                    |
| SEDENTARIA<br>368,                    | 500,                   | 1062,               |  |                |                       |   | ·     |   |
| 442,<br>1145,<br>1215,<br>1398,       | 444,<br>1146,<br>1216, | 464,                | 186,<br>331,<br>652,<br>1200,<br>1219, | 341,<br>677,   | 365,<br>695,<br>1211, | 203,<br>369,<br>1023,<br>1212,<br>1383, | 409,  | 284,<br>439,<br>1144,<br>1214,<br>1385, |
| SETON CREEK<br>1167,                  |                        |                     |  |                |                       | ۷                                       |       |   |
| SEYMOUR NARR<br>920,                  | OWS                    |                     |  |                |                       |   |       |   |
| SEYMOUR RIVE<br>1168,                 | R                      |                     |  |                |                       |   |       |   |
|                                       |                        | 848,<br>1345,       | 1306,<br>1349,                         | 1308,<br>1368, | 1311,                 | 1318,                                   | 1320, | 1332,                                   |
| SHELLFISH<br>138,<br>852,             | 192,<br>922,           | 249,                | 300,                                   | 456,           | 483,                  | 710,                                    | 711,  | 808,                                    |
| SHRIMP<br>9,<br>277,<br>512,<br>1067, | 26,<br>323,<br>515,    | 27,<br>324,<br>515, |  |                | 109,<br>389,<br>783,  |   |       | 224,<br>486,<br>991,                    |
| SHRIMP FISHE<br>28,                   | RY<br>224,             | 324,                | 478,                                   | 480,           | 486,                  | 991,                                    | 1067, |   |
|                                       | 108,<br>480,           |                     | 110,<br>1066,                          | 323,           | 324,                  | 371,                                    | 374,  | 387,                                    |
| SIDNEY<br>579,                        | 580,                   | 582,                | 781,                                   | 894,           | 1110,                 |   |       |   |

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|            | -  |   | - 61   | -  |  |   |  |   |
|------------|--|---|--|--|--|---|--|---|
| IDAE<br>6, |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
| 06.        | 107.   | 114.  | 119,   | 205,   | 206.   | 207,  | 208,   | 210,  |
|            |  |   |  |  |  |   | -  | 424,  |
| -          |  |   |  |  |  |   |  | 1309,   |
| •          | 1353,  | 1402,   | 1409,  | •  |  | ·   | - •  | ·   |
|            |  |   |  |  |  |   |  |   |
| 34,        | 395,   | .988,   | 1311,  |  |  |   |  |   |
| IVER       |  |   |  |  |  |   |  |   |
| 03,        | 104,   | 105,  | 106,   | 107,   | 244,   | 304,  | 345,   | 436,  |
|            | 526,   | 527,  | 528,   | 529,   | 530,   | 531,  | 532,   | 533,  |
| -          | 536,   | 537,  | 538,   | 539,   | 540,   | 541,  | 542,   | 543,  |
| 44,        | 545,   | 546,  | 547,   | 548,   | 549,   | 550,  | 596,   | 597,  |
| 99,        |  | 601,  | 602,   | 603,   | 604,   | 618,  | 778,   | 796,  |
| 09,        | 1192,  | 1258,   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
| 79,        | 372,   | 377,  | 772,   |  |  |   |  |   |
| LET        |  |   |  |  |  |   |  |   |
| 03,        | 104,   | 105,  | 106,   | 107,   | 596,   | 597,  | 778,   | 1109,   |
| 63,        |  |   |  |  |  |   |  |   |
| UND        |  |   |  |  |  |   |  |   |
| 39,        |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
| 59,        | 1403,  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
| 2,         | 44,  | 50,   | 76,  | 80,  | 103,   | 104,  | •  | 106,  |
| 39,        | 218,   |   | 220,   | 221,   |  |   |  | 233,  |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  | 1109,   |
|            |  |   |  |  |  |   |  |   |
| 84,        | 12679  | 12319   | 12379  | 16949  | 12319  | 12309   | 1200,  | 1909,   |
|            |  |   |  |  |  |   |  |   |
|            |  |   |  |  |  |   |  |   |
| 22-        | 24.  | 332.  | 363.   | 308.   | 399.   | <u>4</u> <u>0</u> 2.  | 442-   | 497   |
|            | 24,<br>798,  |   | 363,<br>872,   |  |  |   |  |   |
|            | 06,<br>46,<br>48,<br>34,<br>102,<br>35,<br>909,<br>79,<br>LE3,<br>603,<br>99,<br>29,<br>45,<br>499,<br>59,<br>29,<br>45,<br>49,<br>59,<br>29,<br>45,<br>49,<br>59,<br>29,<br>40,<br>40,<br>49,<br>59,<br>20,<br>40,<br>40,<br>40,<br>40,<br>40,<br>40,<br>40,<br>40,<br>40,<br>4 | 6,         06,       107,         46,       286,         45,       468,         48,       1353,         34,       395,         IVER       03,         03,       104,         24,       526,         35,       536,         44,       545,         99,       600,         09,       1192,         79,       372,         ILET       03,         03,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         63,       104,         64,       276,         445,       346,         547,       528,         37,       538,         646,       547,         99,       600,         8 | 6,<br>06, 107, 114,<br>46, 286, 305,<br>45, 468, 591,<br>48, 1353, 1402,<br>34, 395, 988,<br>IVER<br>03, 104, 105,<br>24, 526, 527,<br>35, 536, 537,<br>44, 545, 546,<br>99, 600, 601,<br>09, 1192, 1258,<br>79, 372, 377,<br>ILET<br>03, 104, 105,<br>63,<br>104, 105,<br>63,<br>104, 105,<br>63,<br>104, 105,<br>63,<br>104, 105,<br>63,<br>104, 105,<br>63,<br>1403,<br>2, 44, 50,<br>39, 218, 219,<br>40, 276, 281,<br>45, 346, 383,<br>57, 528, 529,<br>37, 538, 539,<br>46, 547, 548,<br>99, 600, 601,<br>85, 685, 691,<br>79, 778, 814,<br>49, 1153, 1155,<br>23, 1229, 1231, | IDAE<br>6,<br>06, 107, 114, 119,<br>46, 286, 305, 306,<br>45, 468, 591, 642,<br>48, 1353, 1402, 1409,<br>34, 395, 988, 1311,<br>IVER<br>03, 104, 105, 106,<br>24, 526, 527, 528,<br>35, 536, 537, 538,<br>44, 545, 546, 547,<br>99, 600, 601, 602,<br>09, 1192, 1258,<br>79, 372, 377, 772,<br>ILET<br>03, 104, 105, 106,<br>63,<br>104, 105, 106,<br>106,<br>106,<br>107,<br>107, 114,<br>105, 106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106,<br>106, | 6,<br>06, 107, 114, 119, 205,<br>46, 286, 305, 306, 307,<br>45, 468, 591, 642, 840,<br>48, 1353, 1402, 1409,<br>34, 395, 988, 1311,<br>IVER<br>03, 104, 105, 106, 107,<br>24, 526, 527, 528, 529,<br>35, 536, 537, 538, 539,<br>44, 545, 546, 547, 548,<br>99, 600, 601, 602, 603,<br>09, 1192, 1258,<br>79, 372, 377, 772,<br>ILET<br>03, 104, 105, 106, 107,<br>63,<br>104, 105, 106, 107,<br>63,<br>104, 105, 106, 107,<br>63,<br>104, 105, 106, 107,<br>63,<br>09, 1403,<br>2, 44, 50, 76, 80,<br>39, 218, 219, 220, 221,<br>240, 276, 281, 282, 287,<br>359, 1403,<br>559, 1403,<br>2, 44, 50, 76, 80,<br>39, 218, 219, 220, 221,<br>240, 276, 281, 282, 287,<br>355, 346, 383, 394, 426,<br>27, 528, 529, 530, 531,<br>37, 538, 539, 540, 541,<br>37, 538, 539, 540, 541,<br>365, 685, 691, 692, 716,<br>59, 778, 814, 882, 929,<br>49, 1153, 1155, 1162, 1165,<br>23, 1229, 1231, 1239, 1254, | IDAE         6,         06, 107, 114, 119, 205, 206, 46, 286, 305, 306, 307, 308, 45, 468, 591, 642, 840, 894, 48, 1353, 1402, 1409,         34, 395, 988, 1311,         IVER         03, 104, 105, 106, 107, 244, 24, 526, 527, 528, 529, 530, 35, 536, 537, 538, 539, 540, 44, 545, 546, 547, 548, 549, 600, 601, 602, 603, 604, 09, 1192, 1258,         79, 372, 377, 772,         ILET         03, 104, 105, 106, 107, 596, 63, 104, 105, 106, 107, 596, 63, 104, 105, 106, 107, 596, 63, 104, 105, 106, 107, 596, 63, 103, 39, 218, 219, 220, 221, 229, 1403, 104, 105, 106, 107, 596, 103, 39, 218, 219, 220, 221, 229, 1403, 104, 105, 106, 107, 596, 103, 39, 218, 219, 220, 221, 229, 1403, 104, 105, 106, 107, 596, 103, 39, 218, 219, 220, 221, 229, 1403, 104, 105, 106, 107, 596, 103, 39, 218, 219, 220, 221, 229, 140, 276, 281, 282, 287, 304, 145, 346, 383, 394, 426, 485, 103, 155, 1162, 1165, 119, 123, 1155, 1162, 1165, 1199, 123, 1239, 1254, 1257, 1231, 1239, 1254, 1257, 125 | IDAE<br>6,<br>06, 107, 114, 119, 205, 206, 207,<br>46, 286, 305, 306, 307, 308, 363,<br>45, 468, 591, 642, 840, 894, 974,<br>48, 1353, 1402, 1409,<br>34, 395, 988, 1311,<br>IVER<br>03, 104, 105, 106, 107, 244, 304,<br>24, 526, 527, 528, 529, 530, 531,<br>35, 536, 537, 538, 539, 540, 541,<br>44, 545, 546, 547, 548, 549, 550,<br>99, 600, 601, 602, 603, 604, 618,<br>09, 1192, 1258,<br>79, 372, 377, 772,<br>ILET<br>03, 104, 105, 106, 107, 596, 597,<br>63,<br>100, 218, 219, 220, 221, 229, 231,<br>40, 276, 281, 282, 287, 304, 328,<br>39, 538, 539, 540, 541, 542, 543,<br>345, 346, 383, 394, 426, 485, 524,<br>27, 528, 529, 530, 531, 532, 533,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 552, 595,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 550, 552, 595,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 550, 552, 595,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 550, 552, 595,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 550, 552, 595,<br>37, 538, 539, 540, 541, 542, 543,<br>46, 547, 548, 549, 550, 552, 595,<br>37, 538, 691, 692, 716, 723, 741,<br>59, 778, 814, 882, 929, 995, 1070,<br>49, 1153, 1155, 1162, 1165, 1199, 1200,<br>23, 1229, 1231, 1239, 1254, 1257, 1258, | IDAE<br>6,<br>06, 107, 114, 119, 205, 206, 207, 208,<br>46, 286, 305, 306, 307, 308, 363, 391,<br>45, 468, 591, 642, 840, 894, 974, 1229,<br>48, 1353, 1402, 1409,<br>34, 395, 988, 1311,<br>IVER<br>03, 104, 105, 106, 107, 244, 304, 345,<br>24, 526, 527, 528, 529, 530, 531, 532,<br>35, 536, 537, 538, 539, 540, 541, 542,<br>44, 545, 546, 547, 548, 549, 550, 596,<br>99, 600, 601, 602, 603, 604, 618, 778,<br>09, 1192, 1258,<br>79, 372, 377, 772,<br>ILET<br>03, 104, 105, 106, 107, 596, 597, 778,<br>63,<br>NUND<br>39, 218, 219, 220, 221, 229, 231, 232,<br>40, 276, 281, 282, 287, 304, 328, 329,<br>445, 346, 383, 394, 426, 485, 524, 525,<br>537, 538, 539, 540, 541, 542, 543, 544,<br>446, 547, 548, 549, 550, 596,<br>597, 778, 645, 346, 383, 394, 426, 485, 524, 525,<br>537, 538, 539, 540, 541, 542, 543, 544,<br>466, 547, 548, 549, 550, 552, 595, 596,<br>99, 600, 601, 602, 716, 723, 741, 742,<br>59, 778, 814, 882, 929, 995, 1070, 1101,<br>49, 1153, 1155, 1162, 1165, 1199, 1200, 1210,<br>49, 1153, 1155, 1162, 1165, 1199, 1200, 1210,<br>41, 429, 423, 1229, 1231, 1239, 1254, 1257, 1258, 1266,<br>41, 426, 426, 426, 426, 426, 426, 426, 426 |

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|              |       |              | ( )          |                     |       |       |         |              |
|--------------|-------|--------------|--------------|---------------------|-------|-------|---------|--------------|
|              |       |              | - 62         | -                   |       |       |         |              |
| COMACC OTVED |       |              |              |                     |       |       |         |              |
| SOMASS RIVER |       |              |              |                     |       |       |         |              |
| 1160,        | 1170, |              |              |                     |       |       |         |              |
|              |       |              |              |                     |       |       |         |              |
| SOOKE        |       |              |              |                     |       |       |         |              |
| .183,        | 191,  | 230,         | 230,         | 337,                | 899,  | 900,  | 903,    | 1212,        |
| 1213,        |       |              |              |                     |       |       |         |              |
|              |       |              |              |                     |       |       |         |              |
| SOUPFIN SHAR | K     |              |              |                     |       |       |         |              |
| 1306,        | 1320, | 1332,        |              |                     |       |       |         |              |
|              |       |              |              |                     |       |       |         |              |
| SPAWN        |       |              |              |                     |       |       |         |              |
| 56,          | 122,  | 123,         | 125,         | 131,                | 132,  | 133,  | 134,    | 135.         |
|              |       | 961,         |              |                     |       |       |         |              |
|              |       |              |              |                     | ,     | •     |         |              |
| SPAWNING     | ~     |              |              |                     |       |       |         | ·     .      |
|              |       | 124,         | 126.         | 127.                | 129.  | 130.  | 137.    | 184.         |
| 233,         |       |              |              | 581,                |       |       |         | 640,         |
| 668,         |       | 798,         | 852.         | 853.                | 897   | 912.  | 012     | 040,         |
| 957,         |       | 960,         | 961          | 1159,               | 1160  | 7129  | 1147    | 910,<br>1172 |
|              | 1288, |              | 901 <b>9</b> | 11399               | 1100, | 1104, | TTO ( ) | 1173,        |
| 12579        | 1200, |              |              |                     |       |       |         |              |
| SPECIES KEY  |       |              |              |                     |       |       |         |              |
|              | 27    | 24           | 6.0          | 71                  | 174   | 170   | <b></b> |              |
| 8,           | 21,   | 36,          | 00,          | <i>(</i> <b>1 ,</b> | 170,  | 179,  |         | 383,         |
| 386,         | 388,  | 425,<br>590, | 421,         | 400,                | 511,  | 517,  | 525,    | 560,         |
|              | 568,  | 590,         | 609,         | 630,                | 631,  | 683,  | 696,    | 697,         |
|              |       | 739,         | 141,         |                     |       |       |         |              |
| 849,         | 951,  | 952,         | 997,         | 1044,               | 1301, | 1304, | 1305,   | 1327,        |
|              |       |              |              |                     |       |       |         |              |
| SPECIES LIST |       |              |              |                     | 2.4   |       |         |              |
| 7,           |       | 8,           |              |                     | 36,   | 39,   |         |              |
|              | 63,   |              | 65,          |                     | 70,   | 71,   | 72,     | 79,          |
|              | 85,   |              | 88,          |                     |       | 92,   | 93,     | 94,          |
| 95,          | 96,   | 97,          | 98,          | 99,                 | 123,  | 176,  | 184,    | 190,         |
| 196,         | 204,  | 205,         | 206,         | 207,                | 208,  | 209,  | 210,    | 212,         |
| 213,         | 214,  | 216,         | 217,         | 222,                | 236,  | 237,  | 238,    | 239,         |
| 243,         | 250,  | 281,         | 293,         | 305,                | 306,  | 307,  | 308,    | 310,         |
| 311,         | 312,  | 316,         | 334,         | 335,                | 336,  | 344,  | 346,    | 350,         |
| .351,        | 352,  | 353,         | 387,         | 425,                | 437,  | 439,  | 466,    | 477,         |
| 485,         | 490,  | 492,         | 496,         | 498,                | 499,  | 500,  | 501,    | 509,         |
| 510,         | 518,  | 520,         | 521,         | 534,                | 552,  | 555,  | 556,    | 565,         |
| 566,         | 568,  | 574,         | 583,         | 584,                | 590,  | 594,  | 612,    | 617,         |
| 619,         | 620,  | 623,         | 628,         | 631,                | 632,  | 644,  | 650,    | 654,         |
| 662,         | 666,  | 677,         | 689,         | 699,                | 700,  | 701,  | 702,    | 703,         |
| 705,         | 706,  | 707,         | 722,         | 728,                | 733,  | 747,  | 758,    | 761,         |
| 764,         | 765,  | 777,         | 781,         | 786,                |       | 808,  | 813,    |              |
| 820,         | 821,  | 822,         | 829,         |                     |       | •     |         | 819,         |
|              |       |              |              | 830,                | 834,  | 861,  | 902,    | 908,         |
| 928,         | 936,  | 937,         | 951,         | 952 <b>,</b>        | 953,  | 955,  | 969,    | 971,         |
| 972,         | 976,  | 977,         | 978,         | 979,                | 997,  | 1008, | 1009,   | 1010,        |
| 1024,        | 1031, | 1042,        | 1043,        | 1061,               | 1062, | 1063, | 1064,   | 1066,        |
| 1081,        | 1095, | 1096,        | 1097,        | 1109,               | 1110, | 1124, | 1125,   | 1126,        |
| 1127,        | 1294, | 1295,        | 1296,        | 1301,               | 1304, | 1305, | 1312,   | 1322,        |
| 1327,        | 1329, | 1331,        | 1337,        | 1338,               | 1339, | 1340, | 1341,   | 1342,        |
| 1343,        | 136Ż, | 1363,        | 1364,        | 1365,               | 1366, | 1367, | 1371,   | 1374,        |
|              |       |              |              |                     |       |       |         |              |

SPECIES LIST (CONT'D) 1376, 1378, 1379, 1381, 1407, 1409, SPIONIDAE 35, 62, SPORT FISHERY 814, 903, 1203, 1246, 1249, 1251, 1253, 1402, SPROAT FALLS 1149, 1221, SQUAMISH ESTUARY 331, 334, 336, 339, 340, 341, 342, STAMP RIVER 1160, STEELHEAD 589, 1, 119, 174, 232, 240, 304, 485, 673, 778, 970, 1109, 1162, 756, 1177, 1325, STEVESTON 469, 971, 972, 976, 977, 978, 979, 1241, 111, 1277, STICHAEIDAE 371, STOCKS 281, 282, 304, 345, 347, 407, 482, 678, 1, 983, 1117, 1119, 1120, 1185, 1186, 1188, 1190, 1190, 1243, 1243, 1193, 1194, 1227, 1228, 1244, 1244, 1250, 1289, 1290, 1291, 1399, STOMACH CONTENTS 184**, 1**9Ó, 208, 2, 40, 196, 207, 209, 210, 308, 307, 702, 243, 305, 306, 331, 346, 350, 443, 703, 705, 701, 706, 652, 584, 707, 781, 862, 902, 903, 916, 982, 1085, 798, 842, 962, 1229, 1319, 1322, 1336, 1341, 1343, 1362, 1365, 1366, 1373, 1374, 1375, 1376, 1404, 1409, STREAM CATALOGUE 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1272, 1273, 1274, 1275, 1276, 1268, 1269, 1270, 1271, 1277, 1276,

STRONGYLOCENTROTIDAE

1049, 1406,

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|              |              |              | 04           |              |                |                      |              |               |
|--------------|--------------|--------------|--------------|--------------|----------------|----------------------|--------------|---------------|
| STUART CHANN |              |              |              |              |                |                      |              |               |
| 34,          | 224,         | 344,         | 371,         | 417,         | 486,           | 988,                 | 1231,        |               |
| STURGEON     |              |              |              |              |                |                      |              |               |
|              | 744,         |              |              |              |                |                      |              |               |
|              |              |              |              |              |                |                      |              |               |
| SUCIA ISLAND |              |              |              |              |                |                      |              |               |
| 592,         |              |              |              |              |                |                      |              |               |
| SUMAS RIVER  |              |              |              |              |                |                      |              |               |
| 346,         |              |              |              |              |                | •                    |              |               |
|              |              |              |              |              |                |                      |              |               |
| SURFACE TRAW |              |              |              |              |                |                      |              |               |
|              | 206,         |              | 208,         | 209,         | 210,           | 305,                 | 306,         | 307,          |
| 308,         | 375,         | 376,         | 1409,        |              |                |                      |              |               |
| SWANSON CHAN |              |              |              |              |                |                      |              |               |
|              | 376 <b>,</b> |              |              |              |                |                      |              |               |
|              | 0104         |              | ,            |              |                |                      |              |               |
| SWELTZER CRE | ĔΚ           |              |              |              |                |                      |              |               |
| .346,        | 457,         |              |              |              |                |                      |              |               |
|              |              |              |              |              |                |                      |              |               |
| SYLLÍDAE     | 0.27         | 990,         | 1061.        |              |                |                      |              |               |
| 6,           | 9019         | 770,         | 1001,        |              |                |                      |              |               |
| TAG RECOVERI | ES           |              |              |              |                |                      |              |               |
| 2,           | 44,          | 177,         | 183,         | 186,         | 187,           | 188,                 | 189,         | 191,          |
| 232,         | 233,         | 240,         | 242,         | 243,         | 245,           | 251,                 | 285,         | 287,          |
| 291,         | 304,         | 313,         | 314,         | 318,         | 391,           | 401,                 | 482 <b>,</b> | 523,          |
| 564,         | 625,         | 626,         | 638,         | 651,         | 652,           | 653,                 | 668,         | 694,          |
| 695,         | 706,         | 7.07,        | 723,         | 741,         | 790 <b>,</b>   | 791,                 | 793,         | 798,          |
| 803,         | 804,         | 805,         | 844,         | 845,         | 847,<br>077    | 855,                 | 858,         | 859,          |
| 864,<br>888; | 866,<br>889, | 867,<br>890, | 868,<br>899, | 869,<br>900, | - 877,<br>905, | 88 <b>D,</b><br>962, | 881,<br>964, | 886,<br>1023, |
| . 1071,      | 1073,        | 1075,        | 1076,        | 1077,        | 1078,          |                      | 1112,        | 1113,         |
| 1114,        | 1116,        | 1117,        | 1119,        | 1120,        | 1122,          | 1152,                | 1159,        | 1178,         |
|              |              |              |              |              |                |                      | 1315,        |               |
|              |              | 1351,        |              |              |                | -                    |              |               |
|              |              |              |              |              |                |                      |              |               |
| TAGGING      | ,            | 1.1.         | . 5          | 113          | 102            | 104                  | 107          | 100           |
| 189.         | 4,<br>218,   |              |              | 113,<br>234, |                |                      | 187,<br>284, | 188,<br>285,  |
| 189,<br>287, |              | 229,<br>304, |              |              | 240,<br>318,   |                      | 337,         |               |
|              |              | 434,         |              | 479,         | 488,           |                      |              | . 625,        |
| -            |              |              |              | 653,         |                |                      | 688,         |               |
|              |              |              |              | 741,         |                |                      | 793,         |               |
|              |              |              |              | 804,         |                | 845,                 | 845,         | 847,          |
|              |              |              |              | 864,         | 866,           |                      | 877,         |               |
|              |              | 900,         |              | 905,         |                |                      | 964,         |               |
| 1013,        |              | 1070,        |              | 1073,        |                |                      | 1076,        |               |
| 1077,        |              | 1078,        |              | 1079,        |                |                      | 1113,        |               |
| 1114,        |              |              |              |              |                |                      | 1122, 1202,  |               |
| 1152,        | 11079        | 1178,        | 11071        | 11034        | TTOD           | 11079                | . 12029      | 12079         |
|              |              |              |              |              |                |                      |              |               |

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|   | 439,<br>AND                   | 671,                            | 681,                            | 682,                           | 683,                            | -689,                           | 1087,                           |                                 |
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| BERKELEY E BERKELEY C=ANNALS AND MAG. NATUR. HISTORY, SER. 10,<br>18-468-477 FRB STUDIES 153, LIB+ 36=NOTES ON POLYCHAETA FROM TH<br>OF WESTERN CANADA. 1. SPIONIDAE.+ NANAIMO=BRIEF ANATOMICAL AND<br>NOTES ON SIX ADDITIONAL SPECIES OF SPIONIDAE (POLYDORE) PLUS NO<br>EARLIER RECORDED SPIONIDAE FROM NANAIMO DISTRICT.=   | HABITAT 35                                   |
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| ALLAN J=VANCOUVER PUBLIC AQUARIUM NEWSL. 14(6) LIB+ 70=BRITISH<br>ROCKFISHES.=THIS SERIES CONTAINS A VARIETY OF BRIEF ARTICLES UN<br>FAUNA PRESENT IN THE AQUARIUM THAT ARE OF PUBLIC INTEREST.=   |  |
| ANDREWS H=PUBL. PUGET SD. BIOL. STATION 5-25-27, LIB+ 25=ANIMAL<br>ON KELP.+ SPECIES-LIST=BEDS OF NEREOCYSTIS LUETKEANA IN SAN JUA<br>WERE STUDIED. A TABLE LISTS ANIMALS FOUND IN DIFFERENT AREAS AN<br>HABITATS.=  | N CHN. 39                                    |
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BERKELEY E BERKELEY C=J. FISH RES. BOARD CAN., 10-85-95, LIB+ 53=378MICRONEREIS NANAIMOENSIS SP. N.- WITH SOME NOTES ON ITS LIFE-HISTORY.+378NANAIMO TAXONOMY POLYCHAETA=MICRONEREIS NANAIMOENSIS SP. N.378IS DESCRIBED FROM NANAIMO, B.C.. LARVAL DEVELOPMENT UP TO THE378THREE-SEGMENTED STAGE IS ILLUSTRATED. MICRONEREIS IS INCLUDED IN378NEREIDAE.=378

BERKELEY E BERKELEY C=J. FISH. RES. BOARD CAN., 11-326-334, LIB+ 54= NOTES ON THE LIFE-HISTORY OF THE POLYCHAETE DUDECACERIA FEWKESI (NOM. N.).+ DODD-NARROWS NANAIMO POLYCHAETA= DODECACERIA FEWKESI IS A NEW NAME FOR THE CIRRATULID POLYCHAETE FORMALLY KNOWN AS D. PACIFICA. STAGES OF DEVELOPMENT ARE DESCRIBED AND FIGURED.=

BERKELEY E BERKELEY C=J. FISH. RES. BOARD CAN., 11-454-471, LIB+ 54= ADDITIONS TO THE POLYCHAETE FAUNA OF CANADA, WITH COMMENTS ON SOME OLDER RECORDS.=RECORDS, NOTES AND DESCRIPTIONS ARE GIVEN ON NEW GENERA, SPECIES, AND A NEW VARIETY. ALL ARE FROM THE PACIFIC COAST. ALSO, THIRTEEN SPECIES AND A VARIETY NEW TO EASTERN CANADA ARE RECORDED, ONE NEW TO NORTH AMERICA. ILLUSTRATED.=

BERKELEY E BERKELEY C=J. FISH. RES. BOARD., CAN., 13-541-546, LIB+ 56=381NOTES ON POLYCHAETA FROM THE EAST COAST OF VANCOUVER ISLAND AND FROM381ADJACENT WATERS, WITH A DESCRIPTION OF A NEW SPECIES OF ARICIDEA.+381FRIDAY-HARBOUR FALSE-BAY HECATE-STRAIT=INCLUDES-RECORDS OF TWO SPECIES,381A NEW VARIETY, NOTES ON THREE OTHER SPECIES OF THE REGION. NEW SPECIES,381ARICIDEA LOPEZI, AND FOUR SPECIES NEW TO WESTERN NORTH AMERICA ARE381DESCRIBED. ILLUSTRATED.=381

BERNARD F=J. FISH. RES. BOARD CAN., 26-190-191, LIB+ 69=THE PARASITIC COPEPOD MYTILICOLA ORIENTALIS IN BRITISH COLUMBIA BIVALVES.=FIRST RECORD OF NATURAL INFESTATION OF THE BUTTER CLAM, SAXIDOMUS GIGANTEUS, BY MYTILICOLA ORIENTALIS. NO ECONOMIC SIGNIFICANCE IN B.C.=

BILTON HT JENKINSON DW SHEPARD MP=J. FISH. RES. BOARD CAN., 21-1267-1288383, LIB+ 64=A KEY TO FIVE SPECIES OF PACIFIC SALMON (GENUS DNCORHYNCHUS)383BASED ON SCALE CHARACTERS.+ SOCKEYE PINK COHO CHINOOK CHUM SPECIES-KEY=383A KEY BASED ON DIFFERENCES IN SCALE STRUCTURE WAS DERIVED TO SEPARATE383THE FIVE NORTH AMERICAN SPECIES OF PACIFIC SALMON. PHOTOS.=383

BILTON HT=J. FISH. RES. BOARD CAN. 29-295-301, LIB+ 71=IDENTIFICATION OF384MAJOR BRITISH COLUMBIA AND ALASKA RUNS OF EVEN-YEAR AND ODD-YEAR PINK384SALMON FROM SCALE CHARACTERS.=TWO SCALE CHARACTERISTICS CAN BE USED TO384

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| BUTLER TH=J. FISH. RES. BOARD CAN. 28-1615-1620, LIB+ 71=EUALUS<br>BERKELEYORUM N.SP., AND RECORDS OF OTHER CARIDEAN SHRIMPS (ORDER<br>DECAPODA) FROM BRITISH COLUMBIA.=A NEW SHRIMP EUALUS BERKELEGORUM<br>(FAMILY HIPPOLYTIDAE) IS DESCRIBED. FIRST KNOWN OCCURRENCE OFF B.C. OF<br>FUUR PELAGIC SPECIES ARE RECORDED-PARAPASIPHAE SULCATIFRONS,<br>ACANTHEPHYRA CURTIROSTRIS, A. QUADRISPINOSA, SYSTELLASPIS BRAUERI.=             | 389<br>389<br>389<br>389<br>389<br>389<br>389 |
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| EVELYN TPT=J. FISH. RES. BOARD CAN. 28-517-525, LIB+ 71=FIRST RECORDS<br>OF VIBRIOSIS IN PACIFIC SALMON CULTURED IN CANADA, AND TAXONOMIC STATUS<br>OF THE RESPONSIBLE BACTERIUM, VIBRIO ANGUILLARUM.+ TAXONOMY NANAIMO COHO<br>WEST-VANCOUVER=DISEASE OCCURED IN FOUR SPECIES OF PACIFIC SALMON BEING<br>CULTURED IN SEA WATER. BOTH THE DISEASE AND CAUSATIVE BACTERIUM ARE   | 393<br>393<br>393<br>393<br>393<br>393        |

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| EVELYN TPT=J. FISH. RES. BOARD CAN. 28-1629-1634, LIB+ 71=AN ABER<br>STRAIN OF THE BACTERIAL FISH PATHOGEN AEROMONAS SALMONICIDA ISOLA<br>FROM A MARINE HOST, THE SABLEFISH (ANOPLOPOMA FIMBRIA), AND FROM<br>SPECIES OF CULTURED PACIFIC SALMON.+ SOCKEYE CHUM=BIOCHEMICALLY U<br>CAUSATIVE BACTERIUM (AEROMONAS SALMONICIDA) OF FURUNCULOSIS IN FI<br>DESCRIBED. STRAINS ISOLATED FROM THE SABLEFISH, ANOPLOPOMA FIMBRI<br>SOCKEYE (ONCORCHYCHUS NERKA) AND CHUM (ONCORHYNCHUS KETA) SALMON. | ATED 394<br>TWO 394<br>UNIQUE 394<br>ISH ARE 394<br>IA, 394 |
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| FORRESTER CR=J. FISH. RES. BOARD CAN. 21-1531-1532, LIB+ 64=DEMER<br>QUALITY OF FERTILIZED EGGS OF ROCK SOLE (LEPIDOPSETTA BILINEATA A<br>NANAIMO GANGES-HARBOUR GEORGIA-STRAIT GROUNDFISH=ROCK SOLE EGGS<br>SPECIMENS ARE DEMERSAL AND ADHESIVE.≃   | AYRES).+ 398  |
| FORRESTER CR=J. FISH. RES. BOARD CAN. 21-1533-1534. LIB+ 64=RATE<br>DEVELOPMENT OF EGGS OF ROCK SOLE (LEPIDOPSETTA BILINEATA AYRES).<br>NANAIMO GEORGIA-STRAIT GROUNDFISH=STUDY IN GEORGIA STRAIT FEBRUAR<br>1962.=  | + 399   |
| FORRESTER CR ALDERDICE DF=J. FISH. RES. BOARD CAN. 23-319-340, L<br>EFFECTS OF SALINITY AND TEMPERATURE ON EMBRYONIC DEVELOPMENT OF<br>PACIFIC COD (GADUS MACROCEPHALUS).+ GEORGIA-STRAIT NANOOSE-BAY<br>OCEANOGRAPHICAL-CONDITIONS GROUNDFISH=EGGS OF PACIFIC COD (GADUS<br>MACROCEPHALUS) WERE HELD FROM FERTILIZATION TO COMPLETION OF HAT<br>VARIOUS COMBINATIONS OF CONSTANT SALINITY AND TEMPERATURE.=   | THE 400<br>400<br>400                                       |
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| HOLMES JC=J. FISH. RES. BOARD CAN. 28-903-909, LIB+ 71=HARITAT SEGRATI<br>IN SANGUINICOLID BLOOD FLUKES (DIGENEA) OF SCORPAENID ROCKFISHES<br>(PERCIFORMES) ON THE PACIFIC COAST OF NORTH AMERICA.+ SAN-JUAN-ISLAND<br>VANCOUVER-ISLAND=APOROCOTYLE MACFARLANI WAS FOUND IN FIVE SPECIES OF<br>SEBASTES TAKEN FROM SAN JUAN ISLANDS AND INSHORE WATERS OF VANCOUVER<br>ISLAND. PSETTARIUM SEBASTODORUM WAS FOUND IN 14 SPECIES. THESE TWO<br>FLUKES HAVE DIFFERENT DOMINANT HOSTS.=   | ON 414<br>414<br>414<br>414<br>414<br>414<br>414<br>414       |
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| FRASER-RIVER RIVERS-INLET SKEENA-RIVER=DATA AND SCALES FROM 1934 SOCKEYE   | 536                                    |
| DISCUSSED. DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED.  | 536                                    |
| ANALYSIS OF RUNS.=   | 536                                    |
| CLEMENS WA CLEMENS LS=PROV. OF B.C. DEPT. FISH. REP., 1935, 21-44 LIB+<br>36=CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ NASS-RIVER<br>FRASER-RIVER SKEENA-RIVER RIVERS-INLET=DATA AND SCALES FROM 1935 SOCKEYE<br>DISCUSSED. DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED.<br>ANALYSIS OF RUNS.= | 537<br>537<br>537<br>537<br>537<br>537 |

CLEMENS WA CLEMENS LS=PROV. OF B.C. DEPT. FISH. REP., 1936, 26-44 LIB+ 538 37=CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SUCKEYE SALMON.+ NASS-RIVER 538 FRASER-RIVER RIVERS-INLET SKEENA-RIVER=DATA AND SCALES FROM 1936 SUCKEYE 538 DISCUSSED. DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. 538 ANALYSIS OF RUNS.= 538

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FRASER-RIVER RIVERS-INLET SKEENA-RIVER=DATA AND SCALES FROM 1937 SOCKEYE DISCUSSED. DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. 539 ANALYSIS OF RUNS.= 539 CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1938, 39-41 LIB+ 39= 540 CUNTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 540 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1938 SOCKEYE DISCUSSED. 540 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SUCKEYE SAMPLED. ANALYSIS OF 540 RUNS.= 540 CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1939, 26-38 LIB+ 40= 541 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 541 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1939 SOCKEYE DISCUSSED. 541 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED, ANALYSIS OF 541 RUNS.= 541 CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1940, 26-42 LIB+ 41= 542 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 542 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1940 SOCKEYE DISCUSSED. 542 542 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF RUNS.= 542 CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1941, 27-44 LIB+ 42= 543 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 543 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1941 SOCKEYE DISCUSSED. 543 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF 543 RUNS.= 543 CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1942, 31-42 LIB+ 43= 544 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 544 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1942 SOCKEYE DISCUSSED. 544 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF 544 RUNS.= 544

CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1943, 31-42 LIB+ 44= 545 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 545 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1943 SOCKEYE DISCUSSED. 545 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF 545  $RUNS_{\bullet} =$ 545

CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1944, 32-43 LIB+ 45= CONTRIBUTIONS TO 'THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1944 SOCKEYE DISCUSSED. DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF RUNS.=

CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1945, 31-42 LIB+ 46= 547 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 547 SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1945 SOCKEYE DISCUSSED. 547 DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF 547 RUNS.= 547

CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1946, 29-41 LIB+ 47= 548 CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET 548

CLEMENS WA CLEMENS LS=PROV. OF B.C. DEPT. FISH. REP., 1937, 32-49 LIB+

38=CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ NASS-RIVER

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| SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1946 SOCKEYE DISCUSSED.<br>DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF<br>RUNS.=  | 548<br>548<br>548                              |
| CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1947, 29-40 LIB+ 48=<br>CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET<br>SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1947 SOCKEYE DISCUSSED.<br>DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF<br>RUNS.=   | 549<br>549<br>549<br>549<br>549                |
| CLEMENS WA=PROV. OF B.C. DEPT. FISH. REP., 1948, 25-36 LIB+ 50=<br>CONTRIBUTIONS TO THE LIFE-HISTORY OF THE SOCKEYE SALMON.+ RIVERS-INLET<br>SKEENA-RIVER NASS-RIVER=DATA AND SCALES FROM 1948 SOCKEYE DISCUSSED.<br>DATA INCLUDES LENGTH, WEIGHT, AGE, SEX OF SOCKEYE SAMPLED. ANALYSIS OF<br>RUNS.=   | 550<br>550<br>550<br>550<br>550                |
| CLEMENS WA=PROC. 6TH. PAC. SCI. CONGR. (1939), 3, 391-394 LIB+ 40= THE<br>FISHERIES RESEARCH PROGRAM OF THE FISHERIES RESEARCH BOARD OF CANADA ON<br>THE PACIFIC COAST.=BRIEF REVIEWS OF INVESTIGATIONS, STUDIES OF SOCKEYE<br>SALMON PROPAGATION, SALMON MIGRATIONS, PILCHARDS, AND OCEANOGRAPHIC<br>RESEARCH INDICATE CHARACTER OF BOARD'S RESEARCH PROGRAM.=                                   | 551<br>551<br>551<br>551<br>551                |
| CLEMENS WA=PROV. UF 8.C. DEPT. FISH. REP., 1943, 83-85 LIB+ 44=THE<br>PACIFIC SALMON IN BRITISH COLUMBIA WATERS.+ PINK CHINOOK COHO SOCKEYE<br>CHUM SPECIES-LIST=BRIEF ACCOUNT OF FIVE PACIFIC SALMON SPECIES.=   | 552<br>552<br>552                              |
| CLEMENS WA=PROC. ROY. SOC. CAN. SER. 3, 45(5), 9-17, LIB+ 51=ON THE<br>MIGRATION OF PACIFIC SALMON (ONCORHYNCHUS).+ FRASER-RIVER GEORGIA-STRAIT<br>SUMMER-1950=REVIEW OF LIFE-HISTORY OF THE SOCKEYE SALMON.=   | 553<br>553<br>553                              |
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| COLLINS FS=CAN. GEOL. SURV., VICTORIA MEM. MUS. BULL. 1-99-137 LIB+ 13=<br>THE MARINE ALGAE OF VANCOUVER ISLAND.+ SPECIES-LIST=LISTS ALL MARINE<br>ALGAE COLLECTED ON SHORES OF VANCOUVER ISLAND EXCEPT MYXOPHYCEAE AND<br>DIATOMACAE. GEOGRAPHICAL DISTRIBUTION.=  | 555<br>555<br>555<br>555                       |
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| DU BOIS HM=PUBL. PUGET SD. BIOL. STATION 1-177-183, LIB+ 16=VARIATION<br>INDUCED IN BRACHIOPODS BY ENVIRONMENTAL CONDITIONS.+ PUGET-SOUND=<br>DESCRIBES THE RELATIONSHIP BETWEEN THE VARIATION OF INDIVIDUALS AND<br>PHYSICAL CONDITIONS OF HABITAT FOR LIVING BRACHIOPODS. KNOWING THIS A<br>PALEONTOLOGIST MAY BE ABLE TO THROW LIGHT ON CONDITIONS UNDER WHICH SOME<br>OF FOSSIL FORMS LIVED.= | 558<br>558<br>558<br>558<br>558<br><b>55</b> 8 |

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| ELSEY CR≃CAN. FISHERMAN 13(1), 5-6, LIB+ 26=JAPANESE OYSTER CULTURE<br>BRITISH COLUMBIA WATERS.≖NA≃  | IN 559<br>559                        |
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| FORRESTER CR=BULL. PAC. MAR. FISH. COMM. 7-1-10 LIB+ 69=RESULTS OF<br>ENGLISH SOLE TAGGING IN BRITISH CULUMBIA WATERS.+ OTTER-TRAWL GROUND<br>HECATE-STRAIT GEORGIA-STRAIT TAG-RECOVERIES=SUMMARIZES INFORMATION O<br>MOVEMENTS OF ENGLISH (LEMON) SOLE AS INDICATED BY TAG RECOVERIES AND<br>ENDEAVOURS TO ANSWER QUESTIONS ON THE IDENTITY OF STOCKS AND DIRECTI<br>FACTORS IN MIGRATION.= | N 564<br>564                         |
| FRASER CM=BULL. LAB. NATUR. HIST., STATE UNIV., IOWA 6-1-91 LIB+ 11=<br>HYDROIDS OF THE WEST COAST OF NORTH AMERICA.+ WEST-COAST GEORGIA-STR<br>GABRIOLA-ISLAND PUGET-SOUND SPECIES-LIST=INCLUDES INFORMATION ON<br>GEOGRAPHICAL DISTRIBUTION AND A SYSTEMATIC DISCUSSION.=  |                                      |
| FRASER CM=CAN. GEOL. SURV., VICTORIA MEM. MUS. BULL. 1-147-155 LIB+<br>HYDROIDS FROM VANCOUVER ISLAND.+ SPECIES-LIST=LIST OF ALL SPECIES<br>COLLECTED FROM THE COAST OF VANCOUVER ISLAND AND PRESENTS NOTES AS<br>TO THEIR HABITATS, ETC MAY BE USEFUL TO ANYONE COLLECTING HYDROIDS<br>THESE WATERS. ILLUSTRATED.=  | 566<br>566                           |
| FRASER CM=PAP. BRITISH COLUMBIA ACAD. SCI. 1910-1913, 49-60 LIB+ 14=<br>MARINE BIOLOGY IN BRITISH COLUMBIA.+ NANAIMO FRIDAY-HARBOUR=DISCUSSE<br>MARINE BIOLOGY WITH RESPECT TO IT'S SCOPE. INCLUDES DESCRIPTIONS ON<br>AREAS OF STUDY WITHIN THE FIELD.=   |                                      |
| FRASER CM=TRANS. ROY. SOC. CAN. SER. 3, 8(4), 99-216, LIB+ 14=SOME<br>HYDROIDS OF THE VANCOUVER ISLAND REGION.+ SPECIES-LIST SPECIES-KEY=<br>DESCRIPTION INCLUDES ALL SPECIES TO 1914 WITH A KEY TO GENERA AND<br>AND SPECIES. GIVES DESCRIPTION AND FIGURES OF ALL SPECIES KNOWN TO C<br>FROM B.C. WATERS (PUGET SOUND TO QUEEN CHARLOTTE ISLANDS). ILLUSTRAT                               |                                      |
| FRASER CM=TRANS 2ND. ANN. MEETING (1915) PAC. FISH. SOC. 29-35 LIB+<br>GROWTH OF THE SPRING SALMON.+ CHINOOK=SUMMARIZES METHODS OF STUDYING  |                                      |

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| GROWTH, EMPHASIZES STUDY OF SCALES.=   | 569                                    |
| FRASER CM=TRANS. ROY. SOC. CAN., SER.3, 9(4), 43-49, LIB+ 16=THE<br>SWARMING OF ODONTOSYLLIS.+ POLYCHAETA DEPARTURE-BAY=PRESENTS INFORMATION<br>ON SWARMING OF ODONTOSYLLIS FROM DEPARTURE BAY.=   | 570<br>570<br>570                      |
| FRASER CM=TRANS. ROY. SUC. CAN., SER.3, 13(5), 45-67, LIB+ 20=COPEPODS<br>PARASITIC ON FISH FROM THE VANCOUVER ISLAND REGION + PARASITIC-COPEPODS<br>NANAIMO=LIST AND DESCRIPTION OF PARASITIC COPEPODS. ILLUSTRATED.=   | 571<br>571<br>571                      |
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| FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 12(4), 139-143, LIB+ 19=<br>MIGRATIONS OF MARINE ANIMALS.+ GEORGIA-STRAIT NANOOSE-BAY DEPARTURE-BAY<br>NANAIMO=CONSIDERS MIGRATION TENDENCY OF MARINE FORMS OTHER THAN FISHES.<br>IN ALL THE MAIN CLASSES OF MARINE FORMS REPRESENTED IN WATERS ALONG THE<br>PACIFIC CDAST IN WHICH ADULTS ARE NOT SESSILE OR VERY SEDENTARY,<br>EXAMPLES ARE FOUND THAT INDICATE A TENDENCY TO MIGRATE PERIODICALLY.=              | 573<br>573<br>573<br>573<br>573<br>573 |
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| FRASER CM=TRANS. ROY. SOC. CAN., SER.3, 19(5), 159-167, LIB+ 25=MARINE<br>WOOD BORERS IN BRITISH COLUMBIA WATERS.II.+ VICTORIA QUATSINO-SOUND<br>BAMFIELD RIVERS-INLET=SUMMARY OF EFFECTS PRODUCED BY THE MARINE BORERS<br>IN DIFFERENT TEST LOCALITIES. SPECIES INVOLVED ARE BANKIA SETACES,<br>LIMNORIA LIGNORUM, XYLOPHAGA WASHINGTONA AND EXOSPHAEROMA OREGONENSE.=  | 576<br>576<br>576<br>576<br>576        |
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| FRASER CM=PROC. 3RD. PAC. SCI. CONGR. (1926), 2276-2275 LIB+ 28=MARINE<br>WOOD-BORERS OF THE PACIFIC COAST OF NORTH AMERICA.+ GEORGIA-STRAIT<br>PUGET-SOUND RIVERS-INLET SAN-FRANCISCO-BAY=DESCRIBES CONDITIONS<br>NECESSARY FOR EXISTENCE AND DISTRIBUTION OF MARINE WOOD BORERS AND THE<br>METHOD OF ATTACK ON WOODEN STRUCTURES. SPECIES INVOLVED, TEREDO NAVALIS,<br>BANKIA SETACEA, LIMNORIA LIGNORUM.=   | 578<br>578<br>578<br>578<br>578<br>578 |
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579 FRASER CM SMITH GM=TRANS. ROY. SOC. CAN., SER. 3, 22(5), 271-286, LIB+ 580 28=NOTES ON THE ECULOGY OF THE BUTTER CLAM, SAXIDOMUS GIGANTEUS DESHAYES 580 + GEORGIA-STRAIT SIDNEY=EXAMINATION OF THE ECOLOGY OF SAXIDOMUS SHOWS 580 RESEMBLANCE TO PAPHIA IN THE MANNER IN WHICH IT IS AFFECTED BY 580 ECOLOGICAL CONDITIONS. INCLUDES DATA ON SIZE, AGE, SEX, MATURITY AND 580 SPAWNING. PHOTOS.= 580 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 23(5), 195-198, LIB+ 29=THE 581 SPAWNING AND FREE SWIMMING LARVAL PERIODS OF SAXIDOMUS AND PAPHIA.+ 581 GEORGIA-STRAIT DEPARTURE-BAY CLAM=SUMMARY OF DATA.= 581 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 25(5), 59-72, LIB+ 31=NOTES ON 582 THE ECOLOGY OF THE COCKLE, CARDIUM CORBIS MARTYN.+ GEORGIA-STRAIT SIDNEY 582 CLAM=COLLECTION OF 760 SPECIMENS OF CARDIUM CORBIS GIVES INDICATION THAT 582 SIMILAR ECOLOGICAL CONDITIONS AFFECT THEM AS PAPHIA AND SAXIDOMUS. 582 INCLUDES SIZE, AGE, SEX, MATURITY AND SPAWNING DATA. PHOTOS.≓ 582 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 26(5), 49-70, LIB+ 32=A 583 COMPARISON OF THE MARINE FAUNA OF THE NANAIMO REGION WITH THAT OF THE 583 583 SAN JUAN ARCHIPELAGO.+ SPECIES-LIST=OBSERVING DISTRIBUTION OF CUMMON MARINE SPECIES OF ANIMALS IN NANAIMD REGION AND SAN JUAN ARCHIPELAGO, 583 IT IS EVIDENT THAT LARGE NUMBERS OF SPECIES ARE REPRESENTED IN BOTH 583 AREAS, BUT THERE ARE MANY EXAMPLES OF SPECIES REPRESENTED IN ONE AREA, 583 BUT NOT THE OTHER.= 583 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 27(5), 259-264, LIB+ 33= 584 HYDROIDS AS A FOOD SUPPLY.+ SPECIES-LIST STOMACH-CONTENTS=LISTS SPECIES 584 OF HYDROIDS OBTAINED FROM STOMACH CONTENTS OF A LINGCOD, A HARBOUR SEAL 584 AND WATER BIRDS. INDICATION THAT HYDROIDS MAY FORM AN ARTICLE OF DIET 584 FOR A LARGE VARIETY OF VERTEBRATES.= 584 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 32(4), 39-42, LIB+ 38=HYDROID 585 DISTRIBUTION IN THE NORTH-EAST PACIFIC.+ EASTERN-PACIFIC=DISTRIBUTION 585 DATA INDICATES HYDROID FAUNA OF THE NORTH-EAST PACIFIC HAS BEEN 585 DEVELOPED THROUGH THE INVASION OF THIS AREA OF SPECIES FROM POLAR AND 585 WEST INDIAN REGIONS.= 585 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 33(5), 23-28, L1B+ 39=HYDROID 586 NOTES.+ PUGET-SOUND=DESCRIPTION OF PERIGONIMUS PUGETENSIS FOUND ATTACHED 586 TO SURFACE OF AN AGNOID FISH, HYPSAGONUS QUADRICORNIS COLLECTED IN PUGET 586 SOUND.= 586 FRASER CM=CAN. FIELD NATUR. 56-115-120 LIB+ 42=THE COLLECTING OF MARINE 587 ZOOLOGICAL MATERIAL IN BRITISH COLUMBIA WATERS.=SHORE, BOTTOM, SURFACE 587 AND SUBSURFACE COLLECTING ARE DISCUSSED.= 587 FRASER CM=TRANS. ROY. SOC. CAN., SER. 3, 40(5), 33-39, LIB+ 46=FOOD OF 588 FISHES.+ CHINOOK COHO CHUM HERRING DOGFISH=INCIDENTAL FOOD OBSERVATIONS, 588 MADE OVER SEVERAL YEARS AND AT ALL TIMES OF THE YEAR. SOME VALUABLE 588 COMMERICAL FISH ARE RECORDED.= 588 FRASER FJ=SYMPOSIUM ON SALMON AND TROUT IN STREAMS. H.R. MACMILLAN 589 LECTURES, UNIV. BRITISH COLUMBIA, VANCOUVER, B.C., EDITOR JG NORTHCOTE. 589 253-266 LIB+ 69=POPULATION DENSITY EFFECTS ON SURVIVAL AND GROWTH OF 589

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| AND RECORDS OF THE WEST COAST OF NORTH AMERICA ARE DISCUSSED.  | 650                                    |
| ILLUSTRATED.=  | 650                                    |
| JENSEN HM JEWEL ED JUNGE CO MILNE DJ SHEPARD MP WITHLER FC=STATE OF<br>WASH. DEPT., SEATTLE. GSM+ 59=JOINT REPORT ON THE 1957-1958 CDHO<br>(SILVER) SALMON STUDY IN THE STRAIT OF JUAN DE FUCA BY CANADA AND THE<br>UNITED STATES.+ GILLNET JUAN-DE-FUCA-STRAIT TAGGING TAG-RECOVERIES=<br>REPORT OF THE SUB-COMMITTEE ON THE LOCATION OF THE LINE DELIMITING<br>OFFSHORE WATERS AT THE ENTRANCE TO STRAIT OF JUAN DE FUCA. OUTLINES<br>RESEARCH PROGRAM, EVIDENCE OF COHO MATURITY, MIGRATION INFORMATION.=               | 651<br>651<br>651<br>651<br>651<br>651 |
| JENSEN HM JEWEL E ROGERS DE=STATE OF WASH., DEPT. FISH., SEATTLE 31P LIB   | 652                                    |
| + 59=PROGRESS REPORT NO. 2 ON THE 1958 CATCH AND SAMPLING OF SILVER  | 652                                    |
| SALMON IN THE STRAIT OF JUAN DE FUCA BY THE UNITED STATES.+ GILLNET  | 652                                    |
| SEINING STOMACH-CONTENTS COHO TAGGING TAG-RECOVERIES   | 652                                    |
| JUAN-DE-FUCA-STRAIT=INCLUDES ANALYSES OF CATCHES, SAMPLING PROGRAMS TO   | 652                                    |
| PINPOINT SEASONAL CHANGES IN SIZE, FEEDING AND MATURITY OF COHO.=  | 652                                    |
| JEWEL ED HAGER RC=THE STOCK CONCEPT IN PACIFIC SALMON. H.R. MACMILLAN<br>LECTURES, UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. EDITORS RC SIMON AND<br>PA LARKIN. 183-190P LIB+ 72=FIELD EVALUATION OF CODED WIRE TAG DETECTION<br>AND RECOVERY TECHNIQUES.+ TAGGING TAG-RECOVERIES=ASSESSES GEAR<br>PERFORMANCE TO DETERMINE FEASIBILITY OF TAG SAMPLING PRODUCTION UNDER A<br>VARIETY OF ROUTINELY ENCOUNTERED FIELD CONDITIONS. METHODS LEADING TO<br>IMPROVED TAG EXTRACTION AND RECOVERY WERE ALSU INVESTIGATED. PHOTOS.= | 653<br>653<br>653<br>653<br>653<br>653 |
| JOHNSON MW=UNIV. WASH. PUBL. OCEANOGR. 1-1-38, LIB+ 36=SEASONAL<br>DISTRIBUTION OF PLANKTON AT FRIDAY-HARBOUR, WASHINGTON.+ SPECIES-LIST=<br>GIVES A GENERAL IDEA OF SEASONAL FLUCTUATIONS OF THE MORE IMPORTANT<br>FORMS OCCURRING IN PLANKTON OF FRIDAY HARBOUR. THROUGH CORRELATION WITH<br>CHEMICAL AND PHYSICAL DATA, INFORMATION ON GROWTH AND REPRODUCTIVE<br>HABITS OF ANIMALS AND DIATOMS WAS GAINED.=  | 654<br>654<br>654<br>654<br>654        |
| JOHNSON MW=BIOL. BULL. 67-182-200 LIB+ 34=THE LIFE HISTORY OF THE  | 655                                    |
| COPEPOD TORTANUS DISCAUDATUS (THOMPSON AND SCOTT).+ FRIDAY-HARBOUR=  | 655                                    |
| SUCCESSIVE NAUPLIUS AND COPEPOD STAGES ARE FOLLOWED THROUGH AND  | 655                                    |
| DESCRIBED. ILLUSTRATED.=   | 655                                    |
| JUHNSON MW=BIOL. BULL. 67-466-483 LIB+ 34=THE DEVELOPMENTAL STAGES OF  | 656                                    |
| THE COPEPOD EPILABIOCERA AMPHITRITES MCMURRICH.=DESCRIBES NAUPLIUS AND   | 656                                    |
| COPEPODID STAGES OF SPECIES. ILLUSTRATED.=   | 656                                    |
| JOHNSON MW MILLER RC=UNIV. WASH. PUBL. OCEANOGR. 2-1-18, LIB+ 35=THE   | 657                                    |
| SEASONAL SETTLEMENT OF SHIPWORMS, BARNACLES, AND OTHER WHARF-PILE  | 657                                    |
| ORGANISMS AT FRIDAY HARBOUR, WASHINGTON.=ANALYSIS OF SEASONAL SETTLEMENT   | 657                                    |
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| ORGANISMS ON SUBMERGED DOUGLAS FIR BLOCKS.=  | 657                                    |

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| JOHNSON MW=BIOL. BULL. 69-427-438 LIB+ 35=SEASUNAL MIGRATION OF THE<br>WOOD-BORER LIMNORIA LIGNORUM AT FRIDAY HARBOUR, WASHINGTON.=REPORT<br>VERIFIES MIGRATION OF LIMNORIA LIGNORUM.=   | 658<br>658<br>658                   |
| JOHNSON MW=BIOL. BULL. 84-106-114 LIB+ 43=STUDIES ON THE LIFE-HISTORY<br>THE MARINE ANNELID NEREIS REXILLOSA.=REPORTS ON IMPORTANT ASPECTS OF<br>LIFE-HISTORY OF SPECIES AND PROVIDES IDENTIFICATION OF EGG MASSES.<br>PHOTOS. ILLUSTRATED.=   | 20F 659<br>659<br>659<br>659        |
| JORDAN DS GILBERT CH=PROC. U.S. NAT. MUS. 3-411-413 LIB+ 80=DESCRIPTI<br>UF A NEW SPECIES OF PARALEPSIS (PARALEPSIS CORUSCANS), FROM THE STRAI<br>OF JUAN DE FUCA.=DESCRIBES PARALEPIS CORUSCANS, SP. NOV=   |                                     |
| KETCHEN KS=CAN. DEPT. FISH., TRADE NEWS 4(9), 3-8, LIB+ 52=THE BRITIS<br>COLUMBIA TRAWL FISHERY.+ TAGGING TRAWL-FISHERY=INCLUDES INFORMATION O<br>EXPANSION OF THE FISHERY, SPECIES CAUGHT, RELATION TO OTHER FISHERIES<br>CATCH STATISTICS MARKET SAMPLING, TAGGING STUDIES, GEAR STUDIES AND<br>MANAGEMENT OF INSHCRE FISHERY.=                                | IN 661                              |
| KNUDSEN JW=PACIF. SCI. 18-3-33 LIB+ 64=OBSERVATIONS OF THE REPRODUCTI<br>CYCLES AND ECOLOGY OF THE COMMON BRACHYURA AND CRABLIKE ANOMURA OF PU<br>SOUND, WASHINGTON.+ SPECIES-LIST=STUDY OF GROWTH AND REPRODUCTIVE CYC<br>OF BRACHYURA AND ANOMURA AS THEY RELATE TO OCEANOGRAPHIC AND<br>ENVIRONMENTAL CONDITIONS. INCLUDES NOTES ON HABITAT, FOOD AND FEEDING | JGET 662<br>CLES 662<br>662         |
| LAIRD M=CAN. J. ZOOL. 39-833-842 LIB+ 61=TRICHODINIDS AND OTHER<br>PÅRASITIC PROTOZOA FROM THE INTERTIDAL ZONE AT NANAIMO, VANCOUVER ISL<br>=GIVES SYSTEMATIC ACCOUNT OF SPECIES ENCOUNTERED.=   | AND 663<br>663                      |
| LARKIN PA GRADUATE STUDENTS=CAN. FISH. CULT. 25-27-59 LIB+ 59=THE<br>EFFECTS OF FRESHWATER FISHERIES OF MAN-MADE ACTIVITIES IN BRITISH<br>COLUMBIA.=DISCUSSION OF EFFECTS ON FRESH WATER FISHERIES OF FOREST<br>PRACTICES, AGRICULTURAL DEVELOPMENT, MINING, HYDROELECTRIC DEVELOPMEN<br>INDUSTRIAL POLLUTION AND DEVELOPMENT CONSTRUCTION.=                     | 664<br>664<br>664<br>NT, 664<br>664 |
| LARKIN PA=THE STOCK CONCEPT IN PACIFIC SALMON. H.R. MACMILLAN LECTURE<br>UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. EDITORS RC SIMON AND PA LARKI<br>11-15P LIB+ 72=THE STOCK CONCEPT AND MANAGEMENT OF PACIFIC SALMON.=<br>OUTLINES THE MANAGEMENT OF PACIFIC SALMON BASED ON THE STOCK CONCEPT.<br>THIS CONCEPT CONTAINS ELEMENTS OF CONVENIENCE FOR MANAGEMENT.= | IN 665<br>665                       |
| LIE U=CRUSTACEANS 17-19-30 LIB+ 69=CUMACEA FROM PUGET SOUND AND OF TH<br>NORTHWESTERN COAST OF WASHINGTON, WITH DESCRIPTIONS OF TWO NEW SPECIE<br>SPECIES-LIST=DESCRIBES OCCURRENCE AND DISTRIBUTION OF CUMACEA.<br>ILLUSTRATED.=  |                                     |
| LISTER DB WALKER CE=CAN. FISH. CULT. 37-3-25 LIB+ 66=THE EFFECT OF FL<br>Control on freshwater survival of chum, coho and chinook salmon in th<br>BIG qualicum river.+ big-qualicum-river=na=  |                                     |
| LISTER DB HARVEY RA=CAN. CULT. 40-33-40 LIB+ 69=LOSS OF PETERSEN<br>DISK TAGS FROM SPAWNING CHUM SALMON (ONCORHYNCHUS KETA).+ TAGGING<br>TAG-RECOVERIES=PETERSEN DISK TAG LOSS FROM SPAWNING CHUM SALMON WAS<br>STUDIED OVER A THREE YEAR PERIOD IN AN ARTIFICIAL SPAWNING CHANNEL.=   | 668<br>668<br>668<br>668            |
| LISTER DB HARVEY RA WALKER CE=CAN. FISH. CULT. 40-57-60 LIB+ 69=A  | 669                                 |

MODIFIED WOLFTRAP FOR DOWNSTREAM MIGRANT YOUNG FISH ENUMERATION .+ 669 TRAPPING=AN INCLINED SCREEN TRAPPING SYSTEM IS DESCRIBED WHICH PROVIDES 669 A SAMPLE OF DOWNSTREAM FISH MIGRATIONS BY SCREENING A PORTION OF THE 669 STREAMFLOW. TRAPS USED TO ENUMERATE FOUR SPECIES OF JUVENILE MIGRANT 669 SALMONIDS.= 669 LLOYD LC GUBERLET JE=J. PARASITOL. 18-232-239 GSM+ 32=A NEW GENUS AND 670 SPECIES OF MONORCHIDAE.+ PARASITES=TELOLOCITHUS PUGETENSI IS DESCRIBED 670 AS A NEW SPECIES AND TYPE OF NEW GENUS, BELONGING TO FAMILY MUNORCHIDAE 670 ODHNER. PARASITE CAME FROM INTESTINE OF VIVIPAROUS PERCH, CYMATOGASTER 670 AGGREGATUS. GENUS GENOLOPA IS DISCUSSED. ILLUSTRATED.= 670 LLOYD LC=J. PARASITOL. 24-103-133 GSM+ 38=SOME DIGENETIC TREMATODES FROM 671 PUGET SOUND FISH.+PARASITES=REPORTS AND DESCRIBES DIGENETIC TREMATODES 671 FROM PUGET SOUND FISH. POSSIBLE FUNCTION OF PRE-SOMATIC PIT OF THE 671 STERRHURINAL IS MENTIONED. SIMILARITY BETWEEN PARASITIC FAUNA OF 671 ONCORHYNCHUS TSCHAWYTSCHA AND SALMO SALAN IS REPORTED.= 671 LLUYD LC GUBERLET JE=TRANS. AMER. MICROSCOPICAL SOC. 55-44-48 LIB+ 36= 672 SYNCOELIUM FILIFERUM (SARS) FROM THE PACIFIC SALMON.+ SOCKEYE PINK 672 PARASITES=SYNCOELIUM FILIFERUM IS DESCRIBED FROM THE GILLS OF SALMON. 672 PARASITES WERE FOUND ON SOCKEYE AND PINK SALMON.= 672 MCINNIS BE=PACIFIC BIOLOGICAL STATION, LEDGER FILE WITH H. GODFREY.+ GSM 673 + 74=PACIFIC SALMON AND STEELHEAD ESCAPEMENTS FOR STATISTICAL AREAS 13-673 19, 28, 29, 1963 TO 1973.+ COHO CHINOOK PINK CHUM SOCKEYE GEORGIA-STRAIT 673 STEELHEAD=SUMMARIZES 1963 TO 1973 PACIFIC SALMON ESCAPEMENTS FROM B.C. 673 STREAMS CONTRIBUTING TO GEORGIA STRAIT SALMON FISHERY.= 673 LUCAS CC=TRANS. RDY. SOC. CAN., SER. 3, 21(5), 485-503 LIB+ 27=A 674 BIO-HYDROGRAPHICAL INVESTIGATION OF THE SEA ADJACENT TO THE FRASER RIVER 674 MOUTH. PART 1. THE EFFECT OF FRASER RIVER WATER ON THE PHYSICAL AND 674 CHEMICAL PROPERTIES OF THE ADJACENT SEA.+ OCEANOGRAPHICAL-CONDITIONS 674 GEORGIA-STRAIT=TEMPERATURE, PH, SALINITY, ALKALINITY AND DENSITY WERE 674 DETERMINED FOR GEORGIA STRAIT WATERS.= 674 MACKAY DCG=CAN. FIELD NATUR. 57-147-152=THE BRACHYURAN CRABS OF BOUNDARY 675 BAY, BRITISH COLUMBIA.+ SPECIES-LIST=ACCOUNT OF BRACHYURAN CRABS OF 675 BOUNDARY BAY WITH NOTES ON COLOR, LOCAL AND GENERAL DISTRIBUTION. 675 675 ILLUSTRATED.= MACKINNON D EDGEWORTH L MCLAREN RE=CAN. FISH. CULT. 36-3-14 LIB+ 61=AN 676 ASSESSMENT OF JONES CREEK SPAWNING CHANNEL 1954-1961.=DETAILED 676 DESCRIPTION OF JONES CREEK SPAWNING CHANNEL IS GIVEN WITH AN ASSESSMENT 676 OF ITS OPERATION, MAINTENANCE AND RESULTS DURING THAT SEVEN YEARS 676 FULLOWING CONSTRUCTION. SIGNIFICANT INCREASES IN NUMBERS OF EACH 676 GENERATION OF ADULT SALMON RECORDED. HISTORY OF CHANNEL SHOWS RELATIVELY 676 LOW COST, HIGH FRY SURVIVAL AND INCREASING ADULT RETURNS.= 676 MACPHEE C CLEMENS WA=NORTHWEST SCI. 36-27-38 LIB+ 62=FISHES OF THE SAN 677 677

JUAN ARCHIPELAGO, WASHINGTON.+ BEACH-SEINE HANDLINE DREDGING TRAWLING 677 TROLLING OCEANOGRAPHICAL-CONDITIONS GEORGIA-STRAIT SPECIES-LIST= 677 DESCRIBES COMPOSITION AND DISTRIBUTION OF FISH FAUNA IN THE SAN JUAN 677 ISLAND REGION. RECORDS NUMBER OF SPECIES OF FISH CAPTURED IN PELAGIC, 677 OFFSHORE BENTHONIC AND INSHORE REGIONS OF WATERS SURROUNDING THE ISLANDS 677 TO SEE IF THEY CORRESPOND WITH THE NUMBER OF MACROHABITATS, 677

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| MAJOR RL MOSHER KH MASON JE=THE STOCK CONCEPT IN PACIFIC SALMON. H.R.<br>MACMILLAN LECTURES, UNIV. BRITISH COLUMBIA VANCOUVER, B.C. EDITORS RC<br>SIMON AND PA LARKIN. 209-231P LIB+ 72=IDENTIFICATION OF STOCKS OF<br>PACIFIC SALMON BY MEANS OF SCALE FEATURES.=COVERS FEATURES OF SALMON<br>SCALES AND THEIR RELATION TO LIFE HISTORY OF THE DIFFERENT SPECIES,<br>METHODS FOR COLLECTING, PREPARING, ANALYSING AND INTERPRETING SCALES OF<br>PACIFIC SALMON, METHODS IN WHICH DATA DERIVED FROM SCALES HAVE BEEN USED<br>TO IDENTIFY STUCKS, DISCUSSION OF FUTURE OF SCALE ANALYSIS FOR STOCK<br>IDENTIFICATION AND OTHER STUDIES. PHOTUS.= | 678<br>678<br>678<br>678<br>678<br>678<br>678<br>678<br>678 |
| MANZER JI SHEPARD MP=SYMPOSIUM ON PINK SALMON. H.R. MACMILLAN LECTURES,<br>UNIV. BRITISH COLUMBIA, VANCOUVER B.C. EDITOR MJ WILIMOVSKY. 113-122P<br>LIB+ 62=MARINE SURVIVAL, DISTRIBUTION AND MIGRATION OF PINK SALMON<br>(ONCORHYNCHUS GORBUSCHA) OFF THE BRITISH COLUMBIA COAST.=REVIEW OF<br>CURRENT STATE OF KNOWLEDGE ON MARINE SURVIVAL, DISTRIBUTION AND<br>MIGRATION OF PINK SALMON STOCKS OFF THE CANADIAN WEST COAST.=  | 679<br>679<br>679<br>679<br>679<br>679                      |
| MARGOLIS L BUTLER TH=J. PARASITOL. 40-649-655 GSM+ 54=AN UNUSUAL AND<br>HEAVY INFECTION OF A PRAWN, PANDALUS BOREALIS KRYER, BY A NEMATODE,<br>CONTRACAECUM SP,+ PARASITES=A HEAVY INFECTION OF A PRAWN, PANDALUS<br>BOREALIS, BY A NEMATODE, CONTRACAECUM SP., IS RECORDED. DESCRIPTION,<br>WITH ILLUSTRATIONS OF NEMATODES IS PRESENTED. ONLY RECORD OF<br>AN INVERTEBRATE PARASITIZED BY AN ADULT CONTRACAEUM.=  | 680<br>680<br>680<br>680<br>680<br>680                      |
| MARGOLIS L=CAN. J. ZOOL. 34-207-208 LIB+ 56=ANOMALOUS DEVELOPMENT OF<br>VITELLARIA IN HEMIURUS LEVINSENI (TREMATODE).+ PINK PARASITES=FIRST<br>RECORD OF AN EXTRA VITELLINE MASS IN A TREMATODE. PARASITE COLLECTED<br>FROM PINK SALMON.=   | 681<br>681<br>681<br>681                                    |
| MARGOLIS L ADAMS JR=CAN. J. ZOOL. 34-573-577 LIB+ 56=DESCRIPTION OF<br>GENOLINEA ONCORHYNCHI N. SP., (TREMATODA HEMIURIDAE) FROM ONCORHYNCHUS<br>GORBUSCHA IN BRITISH COLUMBIA WITH NOTES ON THE GENUS.+ PINK PARASITES=<br>GENOLINEA ONCORHYNCHI N. SP. PARASITIC IN THE STUMACH OF PINK SALMON IS<br>DESCRIBED AND COMPARED WITH OTHER KNOWN MEMBERS OF GENOLINEA. NOTES ON<br>HOST AND GEOGRAPHICAL DISTRIBUTION OF GENUS ARE PRESENTED.=  | 682<br>682<br>682<br>682<br>682<br>682                      |
| MARGOLIS L=CAN. J. ZOOL. 36-893-904 LIB+ 58=A NEW SPECIES OF<br>LECITHOPHYLLUM FROM NORTH PACIFIC FISHES WIYH A CONSIDERATION OF THE<br>TAXONOMY OF THE GENERA LECITHOPHYLLUM, APONURUS AND BRACHADEMA<br>TREMATODA HEMIURIDAE.+ SPECIES-KEY PARASITES=LECITHOPHYLLUM<br>ANTEROPORUM N. SP. IS DESCRIBED FROM MERLUCCIUS PRODUCTUS. STATUS OF<br>THE GENERA LECITHOPHYLLUM APONURUS AND BRACHADENA AND ALLOCATION<br>OF THE SPECIES WITHIN THE THE GENERA IS DISCUSSED.=  | 683<br>683<br>683<br>683<br>683<br>683<br>683               |
| MARGOLIS L=CAN. J. ZOOL. 38-839-849 LIB+ 60=A NEW NEMATODE OF THE GENUS<br>CUCULLANUS (CAMALLANATA CUCULLANIDAE) FROM A FLOUNDER, PAROPHRYS VETULUS<br>GIRARD, 1854, WITH NOTES ON THE SPECIES FROM ALEURONECTIFORMES.+<br>PARASITES=CUCULLANUS ANNULATUS N. SP., PARASITIC IN THE INTESTINE OF THE<br>PLEURONECTIFORM FISH PAROPHRYS VETULUS IS DESCRIBED. SPECIES OF<br>CUCULLANUS KNOWN FROM PLEURONECTIFORMES ARE REVIEWED.=  | 684   |
| MARGOLIS L=INT. NORTH PAC. FISH. COMM. BULL. 11-101-156 LIB+ 63=<br>PARASITES AS INDICATORS OF THE GEOGRAPHICAL ORIGIN OF SOCKEYE SALMON,   | 685<br>685  |

PARASITES AS INDICATORS OF THE GEOGRAPHICAL ORIGIN OF SOCKEYE SALMON, 685 ONCORHYNCHUS NERKA (WALBAUM), OCCURING IN THE NORTH PACIFIC OCEAN AND 685

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| ADJACENT SEAS.+ SOCKEYE PINK=SURVEY OF PARASITES OCCURRING IN SALMON TO<br>DETERMINE IF STOCKS OF DIFFERENT RIVERS CAN BE RECOGNIZED ON HIGH SEAS<br>BY CHARACTERISTICS OF THEIR PARASITE FAUNA.=   | 685<br>685<br>685                             |
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| MARLES EW LUSK BM RAPATZ WJ=PAC. MAR. SCI. REP. 73-7-56P ENV. CAN. FISH.<br>MAR. SERV., MAR. SCI. DIRECTORATE, PACIFIC REGION, 1230 GOVERNMENT ST.,<br>VICTORIA, B.C. GSM+ 73=SUMMARY OF HYDROGRAPHIC AND OCEANOGRAPHIC<br>INFORMATION ON SOME BRITISH COLUMBIA ESTUARIES.+<br>OCEANOGRAPHICAL-CONDITIONS=CONCERNED WITH PLACES ON PACIFIC COAST OF<br>CANADA WHERE INDUSTRIAL DEVELOPMENT AND POPULATION GROWTH ARE CLOSELY<br>ASSOCIATED WITH RIVER ESTUARIES.= | 686<br>686<br>686<br>686<br>686<br>686<br>686 |
| MCALLISTER DE=CAN. FIELD NATUR. 73-13-14 LIB+ 59=RECORDS OF MARINE<br>FISHES FROM FRESH WATER IN BRITISH COLUMBIA.+ DOGFISH=ADDITIONAL RECORDS<br>OF SIX MARINE FISHES ENTERING FRESH WATER IN B.C.=  | 687<br>687<br>687                             |
| MCALLISTER CD PARSONS TR STEPHENS K STRICKLAND JDH=LIMNOL. OCEANOGR.<br>6-237-258 LIB+ 61=MEASUREMENTS OF PRIMARY PRODUCTION IN COASTAL SEAWATER<br>USING A LARGE VOLUME PLASTIC SPHERE. PRODUCTIVITY=DESCRIPES A<br>PHYTOPLANKTON BLOOM WHICH WAS OBSERVED IN A PLASTIC SPHERE UNDER NEAR-<br>NATURAL CONDITIONS.=   | 688<br>688<br>688<br>688<br>688               |
| MCFARLANE SH=J. PARASITOL. 21-434-435 GSM+ 35=A STUDY OF THE<br>ENDOPARASITIC TREMATODES FROM MARINE FISHES OF DEPARTURE BAY, B.C.+<br>PARASITES=TREMATODES IDENTIFIED BELONG TO FIFTEEN DIFFERENT FAMILIES, OF<br>WHICH EIGHT ARE DESIGNED AS NEW. THE MOUTH, GILLS, ALIMENTORY TRACT AND<br>URINARY BLADDER OF 100 FISH OF NINE FAMILIES WERE EXAMINED.=  | 689<br>689<br>689<br>689<br>689               |
| MCLEOD T=VANCOUVER PUBLIC AQUARIUM NEWSL. 12(5) LIB+ 68=PENDER HARBOUR<br>WHALE.+ KILLER-WHALE=ACCOUNT OF A KILLER WHALE KEPT AT PENDER HARBOUR BY<br>THE AQUARIUM. PHOTOS.=  | 690<br>690<br>690                             |
| MCMURRICH JP=TRANS. ROY. CAN. INST. 9-23-24 LIB+ 10=THE LIFE HISTORY OF<br>THE PACIFIC SALMON.+ PUGET-SOUND FRASER-RIVER COHO CHUM CHINOOK PINK<br>SOCKEYE=GENERAL INFORMATION ON THE FIVE SPECIES OF PACIFIC SALMON.=  | 691<br>691<br>691                             |
| MCMURRICH JP=COMM. CONSERV., OTTAWA. 4TH ANN. REP. 13P LIB+ 13=SALMON<br>FISHERIES OF BRITISH COLUMBIA.+ SOCKEYE CHINOOK CHUM COHO PINK=GENERAL<br>DISCUSSION OF B.C. SALMON FISHERIES. INCLUDES FISHING GROUNDS,<br>PERIODICITY OF SALMON RUNS, AGE DETERMINATION, SPECIES OF SALMON,<br>INTERNATIONAL CONSIDERATIONS, ILLUSTRATED.=   | 692<br>692<br>692<br>692<br>692               |
| MCMYNN RG HOAR WS=CAN. J. ZOOL. 31-417-432 LIB+ 53=EFFECTS OF SALINITY<br>ON THE DEVELOPMENT OF PACIFIC HERRING.=EXPERIMENTAL RESULTS SHOW EFFECTS<br>OF SOME CONSTANT AND SOME VARYING SALINITIES ON SURVIVAL AND DEVELOPMENT<br>OF PACIFIC HERRING.=  | 693<br>693<br>693<br>693                      |
| MILNE DJ=CAN. DEPT. FISH., TRADE NEWS 5(10), 3-5, LIB+ 53=THE TROLL<br>FISHERY OF BRITISH COLUMBIA.+ TROLLING TAGGING TAG-RECOVERIES.=BRIEF<br>DISCUSSION OF THE B.C. TROLL FISHERY, WITH INFORMATION ON TAGGING.=  | 694<br>694<br>694                             |
| MILNE DJ BALL EAR JENSEN HM JEWEL E=STATE OF WASH., DEPT. FISH., SEATTLE<br>64P GSM+ 59=PROGRESS REPORT NO. 3 ON THE 1958 JUINT TAGGING EXPERIMENT<br>ON COHO SALMON IN THE STRAIT OF JUAN DE FUCA BY CANADA AND THE UNITED<br>STATES.+ TAGGING TAG-RECOVERIES SEINING JUAN-DE-FUCA-STRAIT=INCLUDES<br>ANALYSES OF CATCHES, SAMPLING PROGRAMS TO PINPOINT SEASONAL CHANGES IN   | 695<br>695<br>695<br>695<br>695               |
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MOORE CS MOORE LB=PUBL. PUGET SD. BIOL. STATION 7-289-335. LIB+ 30=SOME

SIZE, FEEDING AND MATURITY OF COHO.=

DESMIDS OF THE SAN-JUAN-ISLANDS.+ SPECIES-KEY=GENERAL CHARACTERISTICS OF 696 DESMIDS CONE-CELLED, MICROSCOPIC PLANTS. KEY TO GENERA. DESCRIPTION OF 696 GENERA AND KEY TO SPECIES.= 696 MURLEY RL RING RA=CAN. ENT. 104-1093-1098 LIB+ 72=THE INTERTIDAL 697 CHIRONOMIDAE (DIPTERA) OF BRITISH COLUMBIA. I. KEYS TO THEIR LIFE STAGES 697 + SPECIES-KEY TAXONOMY=INTERTIDAL CHIRONOMIDAE (DIPTERA) ARE REPRESENTED 697 ON B.C. COAST BY PARACLUNIO ALASKENSIS, SAUNDERIA PACIFICUS, S. MARINUS, 697 S. CLAVICORNIS. LARVAE, PUPAE, AND ADULT MALES IDENTIFIED EASILY WITH 697 KEY. MENTUM OF THE LABIUM FOUND USEFUL AS TAXONOMIC CHARACTER FOR 697 SEPARATION OF LARVAE OF FOUR SPECIES. PHOTOS. ILLUSTRATED.= 697 MORLEY RL RING RA=CAN. ENT. 104-1099-1121 LIB+ 72=THE INTFRTIDAL 698 CHIRONOMIDAE (DIPTERA) OF BRITISH COLUMBIA. II. LIFE HISTORY AND 698 POPULATION DYNAMICS.=STUDY DEVELOPMENT OF FOUR SPECIES USING LABORATORY 698 CULTURING TECHNIQUES, DISTRIBUTION IN TERMS OF SHORE HABITATS AND RANGE, 698 OBTAIN MEASURE OF THEIR ABUNDANCE TEMPORALLY AND SPATIALLY. 698 INVESTIGATION OF LARVAL DIET.= 698 699 MUENSCHER WLC=PUBL. PUGET SD. BIOL. STATION 1-59-84, LIB+ 15=A STUDY OF THE ALGAE ASSOCIATIONS OF SAN-JUAN-ISLAND.+ SPECIES-KEY SPECIES-LIST 699 =STUDY OF ENDOCLADIA, FUCUS, ULVA, LAMINARIACEAE, ZOSTERA ASSOCIATIONS. 699 VEGETATION IN LAGOONS. LIST OF MARINE ALGAE FOUND ON SAN JUAN ISLAND.= 699 MUENSCHER WLC=PUBL. PUGET SD. BIOL. STATION 1-199-210, LIB+ 16= .700 DISTRIBUTION OF SHORE ALGAE ON SHAW ISLAND.+ SPECIES-LIST=DISCUSSES THE 700 DISTRIBUTION OF SHORE ALGAE OF SHAW ISLAND. FIVE ALGAL ASSOCIATIONS 700 DISTINGUISHED (ENDOCLADIA, FUCUS, ULVA, LAMINARIACEAE AND ZOSTERA). 700 LIST OF MARINE ALGAE FOUND ON SHAW ISLAND.= 700 MUNRO JA CLEMENS WA=CAN. FIELD NATUR. 46-166-168 LIB+ 32=FOOD OF THE 701 AMERICAN MERGANSER, MERGUS MERGANSER AMERICANUS, IN BRITISH COLUMBIA., 701 (PART 1).+ SPECIES-LIST STOMACH-CONTENTS=FOOD STUDIES OF THE AMERICAN 701 MERGANSER AND RED-BREASTED MERGANSER, BASED ON ANALYSIS OF STUMACH 701 CONTENTS AND OBSERVATIONS IN THE FIELD.= 701 MUNRO JA CLEMENS WA=CAN. FIELD NATUR. 48-45-47 LIB+ 34=FOOD OF THE 702 AMERICAN MERGANSER, MERGUS MERGANSER AMERICANUS, IN BRITISH COLUMBIA. 702 (PART 2.).+ STOMACH-CONTENTS SPECIES-LIST=ADDITIONAL FOOD STUDIES OF THE 702 MERGANSER.= 702 MUNRO JA CLEMENS WA=CAN. FIELD NATUR. 50-34-36 LIB+ 36=FOOD OF THE 703 AMERICAN MERGANSER, MERGUS MERGANSER AMERICANUS, IN BRITISH COLUMBIA. 703 (PART 3).+ STOMACH-CONTENTS SPECIES-LIST=ADDITIONAL FOOD STUDIES OF THE 703 MERGANSER.= 703 MUNRU JA CLEMENS WA=J. WILDLIFE MANAGEMENT 3-46-53 LIB+ 39=THE FOOD AND 704 FEEDING HABITS OF THE RED-BREASTED MERGANSER IN BRITISH COLUMBIA.= 704 INCLUDES INFORMATION ON DISTRIBUTION, FEEDING HABITS, FOOD, REVIEW OF 704 LITERATURE. INDICATES MAIN FOOD IN LAKES, RIVERS, SALTWATER AND 704 ESTUARIES.= 704

MUNRO JA=CAN. J. RES., D, 19-113-138 LIB+ 41=STUDIES OF WATERFOWL IN 705

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| S<br>A<br>In<br>C | BRITISH COLUMBIA. GREATER SCAUP DUCK, LESSER SCAUP DUCK.+ SPECIES-LIST<br>STOMACH-CONTENTS=A CONTRIBUTION TO THE LIFE HISTORIES OF THE SCAUP DUCKS<br>AS OBSERVED IN B.C. THE GREATER SCAUP DUCK DATA IS CONCERNED WITH ITS<br>WINTER RANGE, NUMERICAL STATUS AND FOUD HABITS. LESSER SCAUP DUCK, MORE<br>DETAILED INFORMATION, PARTICULARLY BEHAVIOR OF SUMMER POPULATIONS, IS<br>PRESENTED.=   | 705<br>705<br>705<br>705<br>705<br>705        |
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| e<br>1<br>N       | MUNRO JA=CAN. J. RES., D, 21-223-260 LIB+ 43=STUDIES OF WATERFOWL IN<br>BRITISH COLUMBIA. MALLARD.+ STOMACH-CONTENTS SPECIES-LIST TAGGING<br>TAG-RECOVERIES.=RECORDS DISTRIBUTION AND MIGRATION OF SPECIES IN WESTERN<br>NORTH AMERICA. BEHAVIOR, GENERAL LIFE HISTORY, NUMERICAL STATUS AND FOOD<br>HABITS STUDIED IN B.C. PHOTOS.=   | 706<br>706<br>706<br>706<br>706               |
| B<br>S<br>P       | MUNRO JA=CAN. J. RES., D, 22-60-86 LIB+ 44=STUDIES OF WATERFOWL IN<br>BRITISH COLUMBIA. PINTAIL.+ TAGGING TAG-RECOVERIES STOMACH-CONTENTS<br>SPECIES-LIST=INFORMATION ON DISTRIBUTION AND MIGRATION OF SPECIES IN<br>PACIFIC COAST REGION IS DETERMINED BY BANDING DATA, AND OBSERVATIONS OF<br>LIFE-HISTORY, BEHAVIOR, AND FOOD HABITS AS STUDIED IN B.C.=  | 707<br>707<br>707<br>707<br>707<br>707        |
| C<br>P<br>C       | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1941, 79-81 LIB+ 42=THE BUTTER<br>CLAM (SAXIDOMUS GIGANTEUS DESHAYES), STUDIES IN PRODUCTIVITY.+<br>PRODUCTIVITY SEAL-ISLAND=INCLUDES COMPARISON OF AREAS. DIGGING EFFORT,<br>CATCH AND ESTIMATION OF POPULATION FOR SEAL ISLAND. FACTORS GOVERNING<br>PRODUCTION ON SEAL ISLAND.=   | 708<br>708<br>708<br>708<br>708<br>708        |
| I<br>I<br>P<br>A  | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1942, 70-74 LIB+ 43=BIOLOGICAL<br>INVESTIGATION OF COMMERCIAL CLAMS.+ PRODUCTIVITY SEAL-ISLAND=<br>INVESTIGATIONS OF THE IMPORTANT SPECIES OF SHELL-FISH IN RELATION TO<br>PRODUCTIVITY OF DIFFERENT AREAS, AND FACTORS SUCH AS GROWTH-RATE AND<br>AMOUNT OF ANNUAL SEEDING WHICH AFFECT THE SIZE OF THE CATCH FROM YEAR TO<br>YEAR. COMMERICAL-CATCH AND INVESTIGATION ON SEAL ISLAND.=               | 709<br>709<br>709<br>709<br>709<br>709<br>709 |
| I<br>C<br>E       | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1943, 75-79 LIB+ 44=BIOLOGICAL<br>INVESTIGATIONS OF COMMERCIAL SHELLFISH.+ PRODUCTIVITY SEAL-ISLAND CLAM=<br>DISTRIBUTION OF 1942-43 CLAM-CATCH IS DISCUSSED AND COMPARISONS ARE MADE<br>BETWEEN ANNUAL PRODUCTION OF DIFFERENT AREAS IN RELATION TO FISHING<br>EFFORT EXPENDED. INVESTIGATION AT SEAL ISLAND. TANK-REARING OF OYSTER<br>LARVAE.=  | 710<br>710<br>710<br>710<br>710<br>710<br>710 |
| I<br>C<br>C       | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1944, 64-67 LIB+ 45=BIOLOGICAL<br>INVESTIGATION OF COMMERCIAL SHELLFISH.+ PRODUCTIVITY SEAL-ISLAND CLAM=<br>COMMERICAL BUTTER-CLAM CATCH IS DISCUSSED. INVESTIGATIONS AT SEAL ISLAND<br>DYSTER INVESTIGATIONS AND NATURAL REPRODUCTION OF PACIFIC OYSTERS IS<br>DISCUSSED.=  | 711<br>711<br>711<br>711<br>711<br>711        |
| T<br>C<br>Fi<br>E | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1945, 67-74 LIB+ 46=CONDITION OF<br>THE BUTTER CLAM FISHERY IN BRITISH COLUMBIA.+ PRODUCTIVITY=STATISTICS ON<br>CLAM-PRODUCTION, WITH INFORMATION ON SPECIES AND QUANTITIES TAKEN,<br>BEACHES EXPLOITED, NUMBER OF DIGGERS INVOLVED AND TIME EXPENDED.<br>BIOLOGICAL STUDIES PROVIDE A BASIS FOR DETERMINING EFFECTIVENESS OR<br>DTHERWISE OF PRESENT REGULATIONS AND FOR FUTURE GUIDANCE OF FISHERY.= | 712<br>712<br>712<br>712<br>712<br>712<br>712 |
|                   | NEAVE F PRITCHARD AL=CAN. FISH. CULT. 2-12-13 LIB+ 47=DO SMALL SALMON<br>TEND TO PRODUCE SMALL SALMON.=NA=   | 713<br>713                                    |
| ٨                 | NEAVE F=PROV. OF B.C. DEPT. FISH. REP., 1946, 72-74 LIB+ 47=   | 714   |

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| INVESTIGATIONS ON COMMERCIAL CLAMS.+ PRODUCTIVITY SEAL-ISLAND CLAM=<br>Information on catch by species, investigations at seal island.=   | 714<br>714                             |
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| NEAVE F=PROV. OF B.C. DEPT. FISH REP., 1947, 87-89 LIB+ 48=RECORDS OF<br>CLAM PRODUCTION.+ PRODUCTIVITY SEAL-ISLAND=INFORMATION ON BUTTER-CLAMS<br>AND RAZOR-CLAMS, COMMERCIAL PRODUCTION, INVESTIGATIONS AT SEAL ISLAND.=  | 715<br>715<br>715                      |
| NEAVE F=TRANS. ROY. SOC. CAN., SER. 3, 42(5), 97-105 LIB+ 48=FECUNDITY<br>AND MORTALITY IN PACIFIC SALMON.+ PINK CHUM SOCKEYE COHO=INFORMATION ON<br>EGG PRODUCTION AND MORTALITY OF FOUR SPECIES OF SALMON, ALSO A<br>COMPARISON BETWEEN SPECIES, EFFECT OF ENVIRONMENTAL CHANGES, PROBLEMS IN<br>SALMON CULTURE.= | 716<br>716<br>716<br>716<br>716        |
| NEAVE F=CAN. FISH. CULT. 16-25-26 LIB+ 54=INTRODUCTION OF ANADROMOUS<br>FISHES ON THE PACIFIC COAST.=BRIEF ACCOUNT OF THE INTRODUCTION OF SHAD<br>AND STRIPED BASS IN PACIFIC WATERS.=  | 717<br>717<br>717                      |
| NEAVE F=THE INVESTIGATION OF FISH-POWER PROBLEMS. H.R. MACMILLAN<br>LECTURES, UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. EDITOR PA LARKIN. 43-<br>48 GSM+ 58=STREAM ECOLOGY AND PRODUCTION OF ANADROMOUS FISH.+<br>PRODUCTIVITY=DISCUSSES STREAM FACTORS INVOLVED IN MAXIMUM FISH<br>PRODUCTION.=                      | 718<br>718<br>718<br>718<br>718<br>718 |
| NEWMAN M=VANCOUVER PUBLIC AQUARIUM NEWSL. 14(6) LIB+ 70=GULF OF GEORGIA<br>SYMPOSIUM.+ GEORGIA-STRAIT=ACCOUNT OF A SYMPOSIUM ON THE GULF OF GEORGIA<br>BEING ESTABLISHED AS A NATIONAL MARINE PARK.=  | 719<br>719<br>719                      |
| NORTHCOTE TG=TYPED REPORT (PRELIMINARY DRAFT, RESTRICTED DISTRIBUTION)<br>WESTWATER RESEARCH CENTRE, UNIV. BRITISH COLUMBIA. GSM+ 73=BIOLOGY OF<br>THE LOWER FRASER RIVER, A REVIEW.=NA=  | 720<br>720<br>720                      |
| U'DONOGHUE CH=TRANS. ROY. CAN. INST. 13-147-209 LIB+ 21=NUDIBRANCHIATÉ<br>MOLLUCUS FROM THE VANCOUVER ISLAND REGION.=NA=  | 721<br>721                             |
| D'DONDGHUE CH=TRANS. ROY. CAN. INST. 15-1-33 LIB+ 24=NOTES ON THE<br>NUDIBRANCHIATE MOLLUSCA FROM THE VANCOUVER ISLAND REGION. IV. ADDITIONAL<br>SPECIES AND RECORDS.+ TAXONOMY SPECIES-LIST=GIVES DESCRIPTION OF NEW<br>SPECIES AND NOTES ON SPECIES PREVIOUSLY LISTED.=   | 722<br>722<br>722<br>722               |
| O'MALLEY H=PROV. OF 8.C. DEPT. FISH. REP., 1918, 58-87 LIB+ 19=MIGRATION<br>OF ADULT SOCKEYE SALMON IN PUGET-SOUND AND FRASER-RIVER.+ TAG-RECOVERIES<br>TAGGING=TAGGING EXPERIMENTS TO DEFINE THE ROUTES AND TIME REQUIRED FOR  | 723<br>723<br>723                      |

IU DEFINE THE ROUTES AND SOCKEYE SALMON OF FRASER RIVER TO PASS THROUGH PUGET SOUND ARE DISCUSSED • INFORMATION ON TAGGING PROCEDURE, STATISTICAL STUDY OF DATA.= 

OUTRAM DN=CAN. GEOGR. J. 29(6), 196-199 GSM+ 69=CAVIAR- VANISHING GIFT OF THE GIANT STURGEON.+ FRASER-RIVER=BRIEF ACCOUNT OF THE STURGEON AS A SOURCE OF CAVIAR.= 

OUTRAM DN=CAN. GEOGR. J. 80(4) 134-137 GSM+ 70=THE CASTAWAY KELPS OF. BRITISH COLUMBIA.+ CAPE-LAZO ALGAE=GENERAL INFORMATION ON 8.C. KELPS, TYPES, USES AND HARVEST.= 

PAMATMAT MM=INTERNATIONALE REVUE DER GERSAMTEN HYDROBIOLOGIE, BAND 53(2) 211-298 LIB+ 68=ECOLOGY AND METABOLISM OF A BENTHIC COMMUNITY ON AN INTERTIDAL SANDFLAT.+ PRODUCTIVITY FALSE-BAY=INVESTIGATION TO DETERMINE 

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THE PRIMARY PRODUCTIVITY OF AN INTERTIDAL SANDFLAT, THE METABOLIC 726 ACTIVITY OF ITS ENTIRE BENTHIC COMMUNITY, AND THE RELATIVE METABOLIC 726 ACTIVITY OF PRODUCERS, MICROORGANISMS PLUS MEIOFAUNA, AND THE MACROFAUNA 726 • ENTAILED DESCRIPTION OF GEOLOGICAL, CHEMICAL AND PHYSICAL FACTORS 726 INCLUDED.= 726 PARSONS TR SEKI H≖SYMPOSIUM ON ORGANIC MATTER IN NATURAL WATERS. 727 OCCASIONAL PAPER. NO. 1, INST. MAR. SCI., UNIV. ALASKA. EDITOR DW HOOD. 727 1-27P GSM+ 70=IMPORTANCE AND GENERAL IMPLICATIONS OF ORGANIC MATTER IN 727 AQUATIC ENVIRONMENTS.+ PRODUCTIVITY=PROCESSES LEADING TO STEADY-STATE 727 EQUILIBRIUM OF ORGANIC MATERIALS IN AQUATIC ENVIRONMENTS ARE REVIEWED. 727 RESULTS SHOW IMPORTANCE OF SMALL PARTICLES PRODUCED AS RESULT OF 727 DECOMPOSITION AND FEEDING PROCESSES IN THE FOOD CHAIN. ESTIMATE IS MADE 727 OF THE LEVEL OF PARTICULATE ORGANIC MATERIAL REQUIRED TO SUPPORT GROWTH 727 AND MAINTENANCE OF FILTER FEEDING COPEPODS.= 727 PEASE VA=PUBL. PUGET SD. BIOL. STATION 1-383-396, LIB+ 17=NORTH PACIFIC 728 COAST SPECIES OF DESMARESTIA.+ TAXONOMY SPECIES-KEY SPECIES-LIST ALGAE≈ 728 PRELIMINARY STATEMENT OF THE GENUS, SUMMARIZING THE LITERATURE 728 ASSEMBLING WHAT IS ALREADY KNOWN OF DISTRIBUTION, GROWTH HABIT, 728 STRUCTURE, AND REPRODUCTION, AND RESULTS OF THE AUTHOR'S OWN STUDY AND 728 OBSERVATIONS.= 728 PENFOLD V≈VANCOUVER PUBLIC AQUARIUM NEWSL. 12(3) LI8+ 68=FLYING TO 729 PENDER HARBOUR.+ GORDEN-BAY KILLER-WHALE=FLIGHT MADE TO GORDEN BAY TO 729 **OBSERVE A NEWLY CAPTURED KILLER WHALE. PHOTOS.=** 729 PENFOLD V=VANCOUVER PUBLIC AQUARIUM NEWSL. 12(3) LIB+ 68=THE PENDER 730 HARBOUR WHALES,+ KILLER-WHALE GUNBOAT-BAY GORDEN-BAY=AN ACCOUNT OF A 730 KILLER WHALE CAPTURE IN THE PENDER HARBOUR AREA.≠ 730 PENFOLD V=VANCOUVER PUBLIC AQUARIUM NEWSL. 12(5) LIB+ 68=ACTIVE PASS. 731 AN ACCOUNT OF AQUARIUM COLLECTING IN ACTIVE PASS.=NA= 731 PENFOLD V=VANCOUVER PUBLIC AQUARIUM NEWSL. 14(1) LIB+ 70=MORE WHALES AT 732 PENDER HARBOUR.+ KILLER-WHALE=AN ACCOUNT OF A KILLER WHALE CAPTURE BY 732 PENDER HARBOUR FISHERMEN.= 732 PERRY EM=PUBL. PUGET SD. BIOL. STATION 1-174-176, LIB+ 16=DISTRIBUTION 733 OF CERTAIN INVERTEBRATES ON A RESTRICTED AREA OF SEA BOTTOM.+ 733 SPECIES-LIST FRIDAY-HARBOUR=TABLE SHOWING DISTRIBUTION OF COMMON 733 ARTHROPODS ECHINODERMS AND MOLLUSKS IN THE FRIDAY HARBOUR AREA.= 733 PETTIBONE MH=J. WASH. ACAD. SCI. 38(12), 412-416 LIB+ 48=TWO NEW SPECIES 734 OF POLYCHAETE WORMS OF THE FAMILY POLYNOIDAE FROM PUGET SOUND AND SAN 734 JUAN ARCHIPELAGO.+ POLYCHAETA PUGET-SOUND SAN-JUAN-ARCHIPELAGO=NA= 734 PETTIBONE MH=AMER. MUS. NOVITATES 1414, 6P 9 FIG. LIB+ 49=POLYCHAETOUS 735 ANNEL [DS OF THE POLYNOIDAE FROM THE NORTHEAST PACIFIC WITH A DESCRIPTION 735 OF A NEW SPECIES.+ POLYCHAETA=DESCRIBES GATTYANA TREADWELLI N.SP. AND 735 LISTS FOUR OTHER SPECIES OF POLYCHAETOUS ANNELIDS. ILLUSTRATED.= -735 PHIFER LD=UNIV. WASH. PUBL. OCEANOGR. 1-39-81, LIB+ 33≈SEASONAL 736 DISTRIBUTION AND OCCURENCE OF PLANKTONIC DIATOMS AT FRIDAY HARBOUR, 736

WASHINGTON.+ FRIDAY-HARBOUR=NA=

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| PHIFER LD=PROC. 5TH. PAC. SCI. CONGR. (1933), 3-2047-2049 LIB+ 34=   | 737                                       |
| PERIODICITY OF DIATOM GROWTH IN THE SAN-JUAN-ARCHIPELAGO.=DISCUSSES  | 737                                       |
| ANNUAL PRODUCTION OF PHYTOPLANKTON, ESPECIALLY DIATOMS, IN THE SAN JUA   | AN 737                                    |
| ARCHIPELAGO.=  | 737                                       |
| PIERRON RP HUANG YC=PUBL. PUGET SD. BIOL. STATION 5-149-157, LIB+ 26=<br>ANIMAL SUCCESSION ON DENUDED ROCKS.+ FRIDAY-HARBOUR=PRESENTS RESULTS O<br>A SERIES OF OBSERVATIONS MADE DURING THE SUMMER OF 1925 AT FRIDAY<br>HARBOUR. RESULTS INDICATE THE STRIKING RAPIDITY WITH WHICH ANIMALS OF<br>THE INTERTIDAL BELT COLONIZE NEWLY AVAILABLE TERRITORY.=  | 738<br>DF 738<br>738<br>738<br>738<br>738 |
| PILSBURY AH=PROC. U.S. NAT. MUS. 59-111-115 LIB+ 22=BARNACLES OF THE S<br>JUAN ISLANDS.+ SPECIES-KEY FRIDAY-HARBOUR=NOTES ON CIRRIPEDES FOUND OM<br>THE SAN JUAN ISLANDS. PHOTOS. ILLUSTRATED.=  |   |
| PLETCHER FT=THESIS, UNIV. OF BRITISH COLUMBIA LIB+ 63=THE LIFE HISTORY<br>AND DISTRIBUTION OF LAMPREYS IN THE SALMON AND CERTAIN OTHER RIVERS IN<br>BRITISH COLUMBIA, CANADA.+ SALMON-RIVER TAXONOMY=TAXONOMY OF B.C.<br>LAMPREYS IS REVIEWED AND CHARACTERISTICS DETERMINED FOR SEPARATING LAF<br>AMNOCETES. DURATION OF ADULT LIFE, DISTRIBUTION WITHIN STREAMS LENGTH<br>SEX RATIO, AND FECUNDITY DETERMINED FOR TWO SPECIES, SPAWNING BEHAVIOF<br>IS DESCRIBED. TEMPERATURE EFFECT ON HATCHING OF LAMPREY EGGS. GROWTH<br>CURVES.= | N 740<br>740<br>RGE 740<br>, 740          |
| PRITCHARD AL=TRANS. AMER. FISH. SOC. 62-88-93 LIB+ 32=RELATION OF  | 741                                       |
| TAGGING PROGRAMS TO THE CONSERVATION OF PACIFIC SALMON OFF THE COAST (   | DF 741                                    |
| BRITISH COLUMBIA.+ SOCKEYE PINK COHO CHINOOK TAG-RECOVERIES=TAGGING  | 741                                       |
| OPERATIONS INDICATE NEED FOR INTERNATIONAL CO-OPERATION IN THE   | 741                                       |
| CONSERVATION OF PACIFIC SALMON.=   | 741                                       |
| PRITCHARD AL FOERSTER RE NEAVE F=CAN. FISH. CULT. 1-22-26 LIB+ 47=<br>EFFICIENCY OF NATURAL PROPAGATION OF PACIFIC SALMON.+ SOCKEYE CHUM COP<br>PINK=GENERAL STATEMENT OF FACTORS WHICH MAY AFFECT PRODUCTION OF FOUR<br>SPECIES OF PACIFIC SALMON.=   |   |
| QUAYLE DB=PROV. OF B.C. DEPT. FISH. REP. 1940, 75-87 LIB+ 41=THE EDIB  | LE 743                                    |
| MOLLUSCS OF BRITISH COLUMBIA.=IDENTIFICATION OF MOLLUSCS BY USE OF   | 743                                       |
| DIAGRAMS. USES AND VALVE AS FOOD. ILLUSTRATED.=  | 743                                       |
| QUAYLE DB=PROV. OF B.C. DEPT. FISH. REP. 1949, ,1-85 LIB+ 50=  | 744                                       |
| INVESTIGATIONS AT SEAL ISLAND.+ PRODUCTIVITY SEAL-ISLAND CLAM= STUDIE:   | S 744                                     |
| IN PRODUCTIVITY OF THE EXPERIMENTAL CLAM AREA AT SEAL ISLAND.=   | 744                                       |
| QUAYLE DB=PROC. NAT. SHELLFISH. ASS. 49-50-53 GSM+ 59=PREDICTION OF<br>OYSTER SETTING IN BRITISH COLUMBIA (CRASSOSTREA GIGAS).+ PENDRELL-SOU<br>LADYSMITH-HARBOUR=EMPIRICAL METHOD OF DETERMINING TIME AND APPROXIMATI<br>INTENSITY OF SETTING IS DESCRIBED.=  |   |
| QUAYLE DB=PROC. NAT. SHELLFISH. ASS. 49-54-58 GSM+ 59=PACIFIC OYSTER   | 746                                       |
| SEED PRODUCTION (CRASSOSTREA GIGAS).=PROCUREMENT OF SEED OYSTERS   | 746                                       |
| (CRASSOSTREA GIGAS) NEEDED TO SUSTAIN PACIFIC OYSTER INDUSTRY IN PACIF   | FIC 746                                   |
| NORTHWEST DESCRIBEC. TWO MAIN SOURCES TOGETHER WITH TYPE OF SEED AND   | 746                                       |
| CULTCH FROM EACH COMPARED.=  | 746                                       |
| QUAYLE DB=B.C. PROV. MUS. HANDBOOK 17-104P LIB+ 60=THE INTERTIDAL  | 747                                       |
| BIVALVES OF BRITISH COLUMBIA.+ SPECIES-LIST SPECIES-KEY=DESCRIPTION OF   | F 747                                     |

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| / | INTERTIDAL BIVALVES OF B.C ILLUSTRATED=   | 747   |
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|   | QUAYLE DB=PROC. NAT. SHELLFISH. ASS. 52-53-63 GSM+ 63=MORTALITY IN<br>PACIFIC OYSTER SEED.=MORTALITY IN PACIFIC OYSTER SEED IS DUE TO SILTING<br>AND COMPETITION FOR SPACE IN CULTCHING MEDIUM. POSSIBILITY OF REDUCING<br>LOSSES IS DISCUSSED.=  | 748<br>748<br>748<br>748                                      |
|   | QUAYLE DB=CAN. DEPT. FORESTRY PUBL. 1044-1-10 (CONTAINED IN TRANSCRIPT<br>OF SYMPOSIUM, COMPILED BY G. BRAMHALL, RELATED TO WOODEN MARINE PILING)<br>GSM+ 64=MARINE BORERS IN B.C. COASTAL WATERS.=PRESENTS THE BIOLOGICAL<br>BACKGROUND TO MARINE BORERS FOR THOSE WHO ARE NOT ACQUAINTED WITH THESE<br>ANIMALS. INVOLVES TWO GROUPS OF BORERS- CRUSTACEANS AND MOLLUSKS.=   | 749<br>749<br>749<br>749<br>749<br>749                        |
|   | RATHBUN MJ=HARRIMAN ALASKA EXPEDITION SER., 10-1-210 LIB+ 04=DECAPOD<br>CRUSTACEANS OF THE NORTHWEST COAST OF NORTH AMERICA.=NA=  | 750<br>750  |
|   | RAWLE J=VANCOUVER PUBLIC AQUARIUM NEWSL. 14(3) LIB+ 70=THE NAUTICHTHYS.<br>BRIEF ACCOUNT OF THE ACTIVITIES OF THE AQUARIUM COLLECTING BOAT<br>NAUTICHTHYS, DURING 1970.=NA=   | 751<br>751<br>751   |
|   | RICE L=PUBL. PUGET SD. BIOL. STATION 7-249-257, LIB+ 30=PECULIARITIES IN<br>THE DISTRIBUTION OF BARNACLES IN COMMUNITIES AND THEIR PROBABLE CAUSES.+<br>SAN-JUAN-ARCHIPELAGO=INCLUDES TOPICS ON LIFE HISTORY, FACTORS AND<br>PUPULATION CONDITIONS, ISOLATED ROCKS AND REEF IN LOW SALINITY WATERS.=  | 752<br>752<br>752<br>752                                      |
|   | RICKER WE=CAN. FISH. CULT. 14-13-19 LIB+ 53=EFFECTS OF PROTECTIVE AND<br>REGULATORY LEGISLATION UPON THE PACIFIC HERRING AND HALIBUT FISHERIES.<br>=DISCUSSES FISHERY ADMINISTRATION, THE HERRING FISHERY, HALIBUT FISHERY.<br>OUTLINES BIOLOGICAL INFORMATION DESIRABLE FOR MAKING FISHING REGULATIONS<br>.=   | 753<br>753<br>753<br>753<br>753<br>753                        |
|   | RICKER WE=CAN. FISH. CULT. 22-1-6 LIB+ 58=SOME PRINCIPLES INVOLVED IN<br>REGULATION OF FISHERIES BY QUUTA.+ HERRING=INCLUDES INFORMATION ON<br>CHARACTERISTICS OF CATCH QUOTAS, B.C. HERRING QUUTAS, EFFECTS ON<br>FISHERMEN AND THE INDUSTRY.=   | <b>7</b> 54<br>754<br>754<br>754                              |
|   | RICKER WE=SYMPOSIUM ON PINK SALMON. H.R. MACMILLAN LECTURES, UNIV.<br>BRITISH COLUMBIA VANCOUVER, B.C. EDITOR MJ WILIMOVSKY. 155-201P LIB+ 62<br>=REGULATION OF THE ABUNDANCE OF PINK SALMON POPULATIONS.=DISCUSSES<br>RECRUITMENT CURVES AND INEQUALITIES OF ABUNDANCE, CHARACTERISTICS OF<br>LINE DOMINANCE AND RELATED MATTERS AND HYPOTHESIS TO ACCOUNT FUR<br>DOMINANCE. EXCELLENT SUMMARY.=   | 755<br>755<br>755<br>755<br>755<br>755                        |
|   | RICKER WE=THE STOCK CONCEPT IN PACIFIC SALMON. H.R. MACMILLAN LECTURES,<br>UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. EDITOR RC SIMON AND PA LARKIN.<br>19-160P LIB+ 72=HEREDITARY AND ENVIRONMENTAL FACTORS AFFECTING CERTAIN<br>SALMONID POPULATIONS.+ CHINOOK SOCKEYE PINK CHUM COHO STEELHEAD KOKANEE=<br>DISCUSSES THE DIVERSITY OF SALMON AND TROUT STOCKS, EVIDENCE BEARING ON<br>RESPECTIVE ROLES OF HEREDITY AND ENVIRONMENT IN DETERMINING PARTICULAR<br>CHARACTERISTICS.= | 756<br>756<br>756<br>756<br>756<br><b>7</b> 56<br><b>7</b> 56 |
|   | RIGG GB=PUBL. PUGET SD. BIOL. STATION 1-309-318, LIB+ 17=SEASONAL<br>DEVELOPMENT OF BLADDER KELP.+ LINCOLN-BEACH ALGAE=FIELD OBSERVATIONS AND<br>DISCUSSION OF SEASONAL DEVELOPMENT OF BLADDER KELP AT LINCOLN BEACH.=  | 757<br>757<br>757   |
|   | ROBERTS LS=CAN. J. ZOOL. 41-115-124 LIB+ 63=ERGASILUS NERKAE N. SP.   | 7 <b>5</b> 8  |
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COPEPODS OF THE E. CAERULUS GROUP.+ PARASITIC-COPEPODS SPECIES-LIST=A 758 NEW SPECIES OF PARASITIC COPEPOD TO WESTERN NORTH AMERICA IS DESCRIBED, 758 ERGASILUS NERKEA N. SP. EMENDATION OF E. TURGIDUS AND REDESCRIPTION OF 758 E. AURITUS ARE PRESENTED. TOTAL OF FOUR SPECIES RESEMBLING E. CAERULUS 758 ARE DESCRIBED, AND CHARACTERS TO DISTINGUISH SPECIES ARE GIVEN. 758 ILLUSTRATED.= 758 ROYAL LA=CAN. FISH. CULT. 14-1-12 LIB+ 53=THE EFFECTS OF REGULATORY 759 SELECTIVITY ON THE PRODUCTIVITY OF FRASER RIVER SOCKEYE.=∩UTLINES 759 PRINCIPAL CAUSE OF DECLINE IN PRODUCTIVITY, UTILIZED KNOWLEDGE, PROBLEMS 759 OF MANAGEMENT, RESEARCH NECESSARY TO SUBSTANTIATE CONCEPTS, FIXED 759 PHYSICAL FACTORS, AND SPAWNING AREAS.= 759 RUGGLES CP RYAN P=CAN. FISH. CULT. 33~1-68 LIB+ 64=AN INVESTIGATION OF 760 LOUVERS AS A METHOD OF GUIDING JUVENILE PACIFIC SALMON.+ POBERTSON-CREEK 760 PUNTLEDGE-RIVER=SUMMARIZE RESULTS OF EXPERIMENTS CARRIED OUT DURING 760 LOUVER TESTING. APPRAISAL OF LOUVER METHOD FOR DEFLECTING JUVENILE 760 SALMON IS PRESENTED. INDICATES AREAS WHERE FURTHER RESEARCH IS REQUIRED. 760 DATA PRESENTED ON PUNTLEDGE RIVER AND ROBERTSON CREEK TESTS.= 760 SCAGEL RF=B.C. PROV. MUS. HANDBOOK 27-330P LIB+ 67=GUIDE TO COMMON 761 SEAWEEDS OF BRITISH COLUMBIA.+ SPECIES-KEY SPECIES-LIST ALGAE=DESCRIBES 761 SEAWEEDS COMMON TO B.C. WITH NOTES ON COLLECTION, PRESERVATION AND USE.= 761 SCAGEL RF=TYPED REPORT LIB+ 46=A REPORT OF A SEAWEED SURVEY OF THE COAST 762 OF BRITISH COLUMBIA.+ ALGAE=ACCOUNT OF FIELD WORK AND OBSERVATIONS MADE 762 ON SEAWEED DURING SUMMER 1946 WITH PARTICULAR REFERENCE TO MACROCYSTIS, 762 NEREOCYSTIS, LAMINARIA, ALARIA, CYSTOPHYLLUM, GRACILARIA. PHOTOS. 762 ILLUSTRATED.= 762 SCAGEL RF=STATE OF WASH., DEPT. FISH. RES. PAP. 1(4), 1-10 GSM+ 56= 763 INTRODUCTION OF A JAPANESE ALGA, SARGASSUM MUTICUM, INTO THE NORTHEAST 763 PACIFIC.+ TAXONOMY SAN-JUAN-ISLANDS ALGAE=NOTES ON THE HISTORY, TAXONOMY 763 AND ECOLOGY OF S. MUTICUM. INCLUDES DESCRIPTIONS OF S. MUTICUM AND 763 CYSTOSEIRA GEMINATA.= 763 SCAGEL RF=NAT. MUS, CAN., BIOL, SER. 52, BULL. 150 GSM+ 57=AN ANNOTATED 764 LIST OF THE MARINE ALGAE OF BRITISH COLUMBIA AND NORTHERN WASHINGTON. 764 SPECIES-LIST SPECIES-KEY=PRELIMINARY KEY TO GENERA OF MARINE ALGAE AND 764 CHECK LIST. ANNOTATED LIST INCLUDES REFERENCES, DISTRIBUTION, AND 764 HABITAT OF SPECIES.= 764

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COMMUNITIES, COMMUNITIES ASSOCIATED WITH THE BOTTOM AND SHORE, GENERAL 777 SURVEY OF COMMUNITIES AND STUDY OF COMMUNITIES OF A RESTRICTED AREA OF 777 SOFT BOTTOM IN SAN JUAN CHANNEL.= 777 SHEPARD MP STEVENSON JC=TRANS. 9TH. BRITISH COLUMBIA NATUR. RESOURCES 778 CONF., 131-190 LIB+ 56=ABUNDANCE, DISTRIBUTION AND COMMERCIAL 778 EXPLOITATION OF THE FISHERIES RESOURCES OF CANADA'S WEST COAST + SOCKEYE 778 FRASER-RIVER SKEENA-RIVER NASS-RIVER RIVERS-INLET SMITH-INLET PINK CHUM 778 COHO CHINOOK STEELHEAD GROUNDFISH DOGFISH=EXAMINATION OF THE MAJOR 778 FISHERIES OF THE PROVINCE, WITH A VIEW TO DETERMINE HOW THOROUGHLY 778 STOCKS OF FISH ARE BEING EXPLOITED BY B.C. FISHERIES AND AVERAGE ANNUAL 778 CATCHES.= 778 779 SIMON RC=THE STOCK CONCEPT IN PACIFIC SALMON. H.R. MACMILLAN LECTURES, UNIV. BRITISH COLUMBIA, VANCOUVER B.C. EDITOR RC SIMON PA LARKIN. 161-779 169P LIB+ 72=GENE FREQUENCY AND THE STOCK PROBLEM.=CONSIDERS EFFECTS OF 779 STRAYING IN CONTEXT OF GENE FREQUENCY CHANGES AS THEY PERTAIN TO THE 779 STOCK PROBLEM. EMPHASIZE THAT THE REALITY OF THE PROBLEM IS INVERSELY 779 PROPORTIONED TO THE AMOUNT OF STRAYING THAT OCCURS. DISCUSSES SOME 779 IMPLICATIONS RESULTING FROM PRESENT TREATMENT.= 779 SINCLAIR DC=THESIS, UNIV. OF BRITISH COLUMBIA LIB+ 65=THE EFFECTS OF 780 WATER LEVEL CHANGES ON THE LIMNOLOGY OF TWO BRITISH COLUMBIA LAKES, WITH 786 PARTICULAR REFERENCE TO THE BOTTOM FAUNA.+ BUTTLE-LAKE CAMPBELL-LAKE= 780 INVESTIGATION OF EFFECTS OF WATER LEVEL FLUCTUATION ON THE LIMNOLOGY OF 780 TWO B.C. COASTAL LAKES, WITH PARTICULAR REFERENCE TO THE RECENTLY 780 ALTERED BOTTOM FAUNA OF AREAS WITH DIFFERENT SUBSTRATE TYPES. INCLUDES 780 DESCRIPTION OF THE AREA, PHYSICAL AND CHEMICAL DATA, PLANKTON, BOTTOM 780 FAUNA, INSECT EMERGENCE, SURFACE OCCURRENCE OF INSECTS, SURFACE 780 OCCURRENCE OF PLANKTON, FISH AND UTILIZATION OF FOOD ORGANISMS BY 78C SALMONIDS.= 780 SMITH G=TRANS. ROY. SOC. CAN., SER. 3, 22(5), 287-291, LIB+ 28=FOOD 781 MATERIAL AS A FACTOR IN GROWTH RATE OF SOME PACIFIC CLAMS.+ SIDNEY 781 STOMACH-CONTENTS SPECIES-LIST CLAM=EXAMINATION OF THE DIGESTIVE TRACT 781 CONTENTS OF CLAMS, PAPHIA STAMINEA AND SAXIDOMUS GIGANTEUS, FROM 781 TWENTY-SIX BEACHES IN THE SIDNEY VICINITY, FOUND CORRELATION BETWEEN 781 FOOD SUPPLY AND RATE OF GROWTH.= 781 782 SMITH GM=TRANS ROY. SOC. CAN., SER. 3, 27(5), 229-245, LIB+ 33=FURTHER OBSERVATIONS ON THE ECOLOGY, RATE OF GROWTH AND FOOD SUPPLY OF SOME 782 PACIFIC CLAMS.+ PRODUCTIVITY DEPARTURE-BAY FALSE-NARROWS KUPER-ISLAND 782 CLAM=AIMS TO DETERMINE WHETHER THE AMOUNT OF VARIATION IN QUANTITY AND 782 QUALITY OF THE PLANKTON OVER CLAM BEDS DURING TIDAL FLOWS WAS SUFFICIENT 782 TO JUSTIFY GROWTH RATE INCREASE. WORK ON RATE OF GROWTH, MATURITY AND 782 LIFE HISTORY OF PAPHIA STAMNIA AND SAXIDUMUS GIGANTEUS.= 782 SMITH RT=STATE OF WASH., DEPT. FISH. BIUL. REP. 36D. LIB+ 37= 783 OBSERVATIONS ON THE SHRIMP FISHERY IN PUGET SOUND.+ SHRIMP-TRAWL=BASED 783 ON FIELD OBSERVATIONS OF PUGET SOUND SHRIMP FISHERY. COVERS SUCH TOPIC 783 AS BIOLOGY OF SHRIMP, THE FISHERY, PRESENT STATE OF FISHERY, EFFECTS ON 783 OTHER ORGANISMS, REGULATION OF SHRIMP FISHERY.= 783

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| STAFFORD J=PROV. OF B.C. DEPT. FISH. REP., 1913, 79-102 LIB+ 14=THE   | 785  |
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| NATIVE OYSTER OF BRITISH COLUMBIA (OSTREA LURIDA CARPENTER).+ VANCOUVER=  | 785  |
| INCLUDES INFORMATION ON EMBRYOLOGY, SPAWNING, SPATTING, METHODS OF  | 785  |
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| BOTTOM FAUNA OF A RESTRICTED AREA NEAR FRIDAY HARBOUR, WASHINGTON.+   | 786  |
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| STEPHENSON TA STEPHENSON A=J. ECOL. 49-1-29 LIB+ 61=LIFE BETWEEN THE<br>TIDE MARKS IN NORTH AMERICA 4A. VANCOUVER ISLAND, 1.+ BRANDON-ISLAND<br>DEPARTURE-BAY VICTORIA NANAIMO OCEANOGRAPHICAL-CONDITIONS ALGAE=DESCRIBE<br>SHORE-POPULATIONS ON BRANDON -SLAND, HORSWELL BLUFF, FALSF NARROWS AND<br>VICTORIA. COMPARES SHORE-POPULATIONS OF SHELTERED WATERS TO EXPOSED<br>PLACES. COMPARES THESE AREAS TO PACIFIC COAST AS A WHOLE AND TO OTHER<br>PARTS OF THE WORLD. NOTES ON FUCUS, CYSTOSEIRA, AND OTHER ALGAE.= | 787<br>787<br>787<br>787<br>787<br>787<br>787<br>787 |
| STEPHENSON TA STEPHENSON A=J. ECUL. 49-227-243 LIB+ 61=LIFE BETWEEN<br>TIDE-MARKS IN NORTH AMERICA 4B. VANCOUVER ISLAND, 2.+ ALGAE NANAIMO=<br>EXTENDS DESCRIPTION TO OTHER LOCALITIES OF VANCOUVER ISLAND AND<br>CONSIDERS THE WHOLE AREA IN ITS BROADER ASPECTS. TAKES FOR GRANTED<br>KNOWLEDGE OF CONTENTS IN PART IVA. (DOC. NO. 787).=   | 788<br>788<br>788<br>788<br>788<br>788               |
| STEVENS BA=PUBL. PUGET SD. BIOL. STATION 3-273-309, LIB+ 25=HERMIT CRABS<br>OF FRIDAY HARBOUR, WASHINGTON.+ PUGET-SOUND SPECIES-KEY FRIDAY-HARBOUR=<br>DESCRIBES AND FIGURES SPECIES OF F. PAGURIDAE FOUND IN PUGET SOUND UP TO<br>1925. BASED ON MATERIAL COLLECTED FROM THE SUMMERS OF 1927 AND 1923 IN<br>THE FRIDAY HARBOUR REGION. ILLUSTRATED.=   | 789<br>789<br>789<br>789<br>789<br>789               |
| STEVENSON JC LANIGAN JA=PROV. OF B.C. DEPT. FISH. REP. 1949, 41-80 LIB+   | 790  |
| 50=RESULTS OF THE WEST COAST OF VANCOUVER ISLAND HERRING INVESTIGATION,   | 790  |
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| FISHERY, TAGGING AND TAG-RECOVERY, SAMPLING OF CATCHES AND SPAWNING RUNS  | 790  |
| EXTENT AND INTENSITY OF SPAWNING. COMPARATIVE STUDY OF TWO POPULATIONS.=  | 790  |
| STEVENSON JC OUTRAM DN=PROV. OF B.C. DEPT. FISH. REP., 1952, 57-84 LIB+   | 791  |
| 53=RESULTS OF INVESTIGATION OF THE HERRING POPULATIONS ON THE WEST COAST  | 791  |
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| AND ABUNDANCE. COMPARATIVE STUDY OF THE TWO POPULATIONS.=   | 791  |
| STEVENSON JC=TRANS. 7TH. BRITISH COLUMBIA NATUR. RESOURCES CONF., 15-25   | 792  |
| LIB+ 54=A RESEARCH PROJECT IN HERRING MANAGEMENT.=PAPER SHOWS A MEASURE   | 792  |
| OF SUCCESS ATTAINED IN APPLYING RESEARCH TO THE PROBLEM OF MANAGING B.C.  | 792  |
| HERRING RESOURCES.=   | 792  |
| STEVENSON JC=RAPPORT ET PROCES-VERBAUX DES REUNIONS 140 (11), 33-34 LIB+<br>55=THE MOVEMENT OF HERRING IN BRITISH COLUMBIA WATERS AS DETERMINED BY<br>TAGGING. WITH A DESCRIPTION OF TAGGING AND TAG RECOVERY METHODS.+<br>TAGGING TAG-RECOVERIES=BRIEF SUMMARY OF TAGGING AND TAG RECOVERY<br>PROGRAMS ON B.C. HERRING.=   | 793<br>793<br>793<br>793<br>793<br>793               |

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| STIMSON JS=THE STOCK CONCEPT IN PACIFIC SALMON. H.R. MACMILLAN LECTURES,   | 794                                    |
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| UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. EDITOR RC SIMON PA LARKIN. 173-  | 794                                    |
| 181P LIB+ 72=DISCRIMINATION OF BREEDING GROUPS OF THE MARICID SNAIL  | 794                                    |
| THAIS LAMELLOSA USING RADIOISOTOPE X-RAY SPECTROMETRY AND MULTIVARIATE   | 794                                    |
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| OF IN SITU MARINE PHOTOSYNTHESIS USING A LARGE PLASTIC BAG.=REPORT ON A  | 795                                    |
| PIECE OF EQUIPMENT USED TO STUDY GROWTH AND DECAY OF MARINE  | 795                                    |
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| ECSTALL-RIVERS RIVERS-INLET=DESCRIBES MOULT PROGRESSION, PELAGE PATTERNS   | 796                                    |
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| SUNDE LA LINDSEY CC=UNIV. B.C., INST. OF FISH. MUS. CONTR. 1-1-6 LIB+  | 797                                    |
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| PAROPHRYS VETULUS.(GIRARD) IN THE GULF OF GEORGIA IN RELATION TO THE   | 798                                    |
| COMMERCIAL FISHERY.+ OTTER-TRAWL BAYNES-SOUND BOAT-HARBOUR TAGGING   | 798                                    |
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| LIFE HISTORY STUDIES OF TRAWL CAUGHT FISH. SURVEY INFORMATION ON A   | 798                                    |
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| TAYLOR FHC=WESTERN FISH. 47(5), 12-13, LIB+ 54=A SUMMARY OF HERRING  | 799                                    |
| RESEARCH IN THE 1952-53 SEASON.+ WEST-COAST GEORGIA-STRAIT=OUTLINES THE  | 799                                    |
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| TAYLOR FHC=RAPPORTS ET PROCES-VERBAUX, CONSEIL PERMANENT INTERNATIONAL   | 800                                    |
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| TESTER AL=PROV. OF B.C. DEPT. FISH. REP., 1933, 71-73 LIB+ 34=THE AGE  | 802                                    |
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| TESTER AL=PROV. OF B.C. DEPT. FISH. REP., 1943, 53-74 LIB+ 44=TAGGING OF<br>HERRING (CLUPEA PALLASII) IN BRITISH COLUMBIA, INSERTIONS AND RECOVERIES<br>DURING 1943-44.+ TAGGING TAG-RECOVERIES WEST-COAST GEORGIA-STRAIT<br>QUEEN-CHARLOTTE-ST.=COVERS TAGGING, TAG RECOVERIES, RECOVERY METHODS,<br>STABILITY OF POPULATIONS AND MOVEMENTS.=  |   |
| TESTER AL=PROV. OF B.C. DEPT. FISH. REP., 1944, 45-63 LIB+ 45=TAGGING OF<br>HERRING (CLUPEA PALLASII) IN BRITISH COLUMBIA, INSERTIONS AND RECOVERIES<br>DURING 1944-45.+ GEORGIA-STRAIT WEST-COAST TAGGING TAG-RECOVERIES=<br>DISCUSSES TAGGING, TAGS, RECOVERY METHODS, DETECTOR RECOVERIES, MAGNET<br>RECOVERIES, STABILITY OF POPULATIONS, MOVEMENTS AND MORTALITY RATES.=   |   |
| TESTER AL=PROV. OF B.C. DEPT. FISH. REP., 1945, 43-66 LIB+ 46=TAGGING OF<br>HERRING (CLUPEA PALLASII) IN BRITISH COLUMBIA, INSERTIONS AND RECOVERIES<br>DURING 1945-46.+ GEORGIA-STRAIT WEST-COAST QUEEN-CHARLOTTE-ST.<br>TAGGING TAG-RECOVERIES=DISCUSSES TAGGING, TAGS, RECOVERY METHODS AND<br>APPARATUS, RECOVERIES, MIXING BETWEEN MAJOR AREAS, MIXING BETWEEN MINOR<br>AREAS.=  |   |
| THOMPSON TG PHIFER LD=UNIV. WASH. PUBL. OCEANOGR. 1-111-134, LIB+ 36=<br>THE PLANKTON AND PROPERTIES OF THE SURFACE WATERS OF THE PUGET SOUND<br>REGION.+ PUGET-SOUND=NA=   | 806<br>806<br>806                             |
| THOMPSON WF=PROV. OF B.C. DEPT. FISH. REP., 1921, 37-56 LIB+ 13=REPORT<br>ON THE CLAM BEDS OF BRITISH COLUMBIA.+ BOUNDARY-BAY BURRARD-INLET<br>FRASER-SAND-HEADS SPECIES-LIST=REPORT INCLUDES TUPICS ON DISTRIBUTION<br>OF BEDS, SPECIES OF CLAMS FOUND, ENEMIES OF CLAMS, METHODS OF<br>UTILIZATION AND REGULATION OF CLAM-SUPPLY, RECCOMMENDATIONS FOR CONTROL<br>OF CLAM-BEDS, RELATION OF CLAMS TO OYSTER-CULTURE, CLAM-BEDS OF BOUNDARY<br>BAY FRASER SAND-HEADS, BURRARD INLET, EASTERN SIDE OF VANCOUVER ISLAND<br>ISLAND SOUTH-EAST OF VANCOUVER ISLAND. PHOTOS.= | 807<br>807<br>807<br>807<br>807<br>807<br>807 |
| THOMPSON WF=PROV. OF B.C. DEPT. FISH. REP., 1913, 103-125 LIB+ 14=REPORT<br>ON THE SHELL-FISH BEDS OF BRITISH COLUMBIA (CLAMS, MUSSELS, AND<br>SCALLOPS).+ SPECIES-LIST QUEEN-CHARLOTTE-IS. QUEEN-CHARLOTTE-SD.<br>GEORGIA-STRAIT BAYNES-SOUND=REPORT INCLUDES TOPICS ON DISTRIBUTION OF<br>BEDS, SPECIES OF SHELLFISH, ENEMIES, UTILIZATION AND REGULATION OF BEDS,<br>CLAM-BEDS OF QUEEN CHARLOTTE ISLANDS, CHANNELS BETWEEN QUEEN CHARLOTTE<br>SOUND, GEORGIA STRAIT AND BAYNES SOUND.=  | 808<br>808<br>808                             |
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| TOLLEFSUN R AND ASSOCIATES=TYPED REPORT. PREPARED FOR NORTHWEST PULP AND<br>PAPER ASSOCIATION 182P LIB+ 59=A SUMMARY OF FISHERY STATISTICS OF THE<br>PACIFIC CUAST.=NA=   | 811<br>811<br>811                             |
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WAS ATTRIBUTED TO AN ABNORMAL CONDITION IN THE WATER WHICH SO AFFECTED THE RESPIRATION OF THE FISH THAT THEY DIED.= 854 FOERSTER RE=FISH. RES. BOARD CAN. PAC. PROGR. REP. 53-12-13 LIB+ 42= 855 DOGFISH TAGGING-PRELIMINARY RESULTS.+ TAG-RECUVERIES TAGGING 855 GEORGIA-STRAIT=ACCOUNT OF FOUR SEPARATE TAGGINGS. RESULTS SUGGEST QUITE 855 AN EXTENDED MOVEMENT IN VARIOUS DIRECTIONS.= 855 FOERSTER RE=FISH. RES. BOARD CAN. PAC. PROGR. REP. 56-14 LIB+ 43= 856 ABUNDANCE OF CYSTOPHYLLUM GERMINATUM IN THE STRAIT OF GEORGIA.+ ALGAE 856 GEORGIA-STRAIT=ACCOUNT OF A BROWN SEAWEED CYSTOPHYLLUM GEMINATUM.= 856 FOERSTER RE=FISH. RES. BOARD CAN. PAC. PROG. REP. 56-15 LIB+ 43=PACIFIC 857 MACKEREL, PNEUMATOPHORUS DIEGO.+ GEORGIA-STRAIT=PNEUMATOPHORUS DIEGO IS 857 RECORDED IN GEORGIA STRAIT.= 857 FORRESTER CR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 99-28-29 LIB+ 54= 858 TAGGING EXPERIMENTS ON GRAY COD.+ TAG-RECOVERIES GEORGIA-STRAIT 858 GROUNDFISH NANOOSE-BAY=ACCOUNTS OF TAGGING EXPERIMENTS USING DIFFERENT 858 TYPES OF TAGS.≠ 858 FORRESTER CR KETCHEN KS=FISH. RES. BOARD CAN. PAC. PRUGR. REP. 103-8-10 859 LIB+ 55=PRELIMINARY RESULTS OF GRAY COD TAGGING IN GEORGIA STRAIT IN THE 859 WINTER OF 1954-55.+ TAG-RECOVERIES SWANSON-CHANNEL NANOOSE-BAY CAPE-LAZO 859 GEORGIA-STRAIT GROUNDFISH=SUMMARIZES RECAPTURE RESULTS OF TAGGING 859 EXPERIMENTS USING DIFFERENT TYPES OF TAGS AND ATTACHMENT.= 859 FURRESTER CR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 105-11 LIB+ 56=THE 860 RELATION OF STOCK DENSITY TO 'MILKINESS' OF LEMON SOLE IN UNION BAY, 860 B.C.+ BAYNES-SOUND GROUNDFISH='MILKINESS' IS ASSOCIATED WITH ABUNDANCE 0.48 OF MYXOSPORIDEAN OF THE GENUS CHLOROMYXUM.= 860 FURRESTER CR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 111-20-21 LIB+ 58= 861 THE RECENT RISE IN LANDINGS OF WHOLE FISH FOR MINK FEED IN BRITISH 861 COLUMBIA.+ OTTER-TRAWL SPECIES-LIST GEORGIA-STRAIT=CUVERS PERCENTAGE 861 COMPOSITION OF SPECIES CONTRIBUTING TO OTTER-TRAWL LANDINGS OF MINK 861 FEED.= 861 FOSKETT DR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 86-18-19 LIB+ 51=YOUNG 862 SALMON IN THE NANAIMO AREA.+ CHUM CHINDOK PINK COHO DEPARTURE-BAY 862

STOMACH-CONTENTS=RECORDS SPECIES, LENGTH, WEIGHT, STOMACH CONTENTS AND 862 SCALE DEVELOPMENT. THESE RESULTS PROVIDE PRELIMINARY INFORMATION OF LIFE 862 HISTORIES.= 862

FRASER CM=FISH. RES. BOARD CAN. PAC. PROGR. REP. 6-9-12 LIB+ 30= 863 COMMERCIAL CLAMS OF BRITISH COLUMBIA.+ GEORGIA-STRAIT CLAM=ACCOUNT OF 863 DISTRIBUTION, FOOD, REPRODUCTION AND GROWTH CONSERVATION, BUTTER CLAMS 863 LITTLE NECK CLAMS, RAZOR CLAMS AND CLOSED SEASONS.= 863

HART JL TESTER AL=BIOL. BOARD CAN. PAC. PROGR. REP. 31-11-13 LIB+ 37= 864 TRACING THE MOVEMENTS OF HERRING.+ TAGGING TAG-RECOVERIES GEORGIA-STRAIT 864 =RESULTS OF INITIAL ATTEMPT AT TAGGING AND RECOVERY DEMONSTRATE 864 FEASIBILITY OF APPLYING THE METHODS TO B.C. HERRING TO GATHER 864 INFORMATION ON THEIR MOVEMENTS.= 864

HART JL MCHUGH JL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 41-20-21 LIB+ 865

| 39=VERTEBRAL NUMBERS IN YOUNG BRITISH COLUMBIA HERRING.+ SAANICH-ARM<br>FULFORD-HARBOUR LADYSMITH-HARBOUR DEPARTURE-BAY NANOOSE-BAY=COVERS FIRST<br>RESULTS OF VERTEBRAL COUNTS OF YOUNG HERRING, AND CONCLUSIONS WHICH MAY<br>BE DRAWN FROM THEM.=   | 865<br>865<br>865<br>865               |
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| HART JL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 42-20-21 LIB+ 39=<br>PRELIMINARY REPORT ON LINGCOD TAGGING.+ TAG-RECOVERIES GROUNDFISH=NA=   | 866<br>866                             |
| HART JL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 44-14-15 LIB+ 40=GROWTH<br>IN LINGCOD.+ TAGGING TAG-RECOVERIES GROUNDFISH=RESULTS OF GROWTH IN<br>LINGCOD FROM TAGGING EXPERIMENTS.=   | 867<br>867<br>867                      |
| HART JL≠FISH. RES. BOARD CAN. PAC. PROGR. REP. 56-10-11 LIB+ 43=RATE OF<br>GROWTH IN LINGCOD.+ TAG-RECOVERIES GROUNDFISH=INFORMATION FROM<br>RECAPTURED FISH MAKE IT POSSIBLE TO DETERMINE RATE OF GROWTH.=   | 868<br>868<br>868                      |
| HART JL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 57-3-7 LIB+ 43=MIGRATION<br>OF LINGCOD.+ TAG-RECOVERIES GROUNDFISH=INFORMATION FROM RECAPTURED FISH<br>MAKE IT POSSIBLE TO DETERMINE MOVEMENTS OF INDIVIDUAL FISH.=  | 869<br>869<br>869                      |
| HOURSTON AS=FISH. RES. BOARD CAN. PAC. PROGR. REP. 109-12-13 LIB+ 57=<br>RELATIVE ABUNDANCE OF JUVENILE HERRING IN THE STRAIT OF GEORGIA IN 1955<br>AND 1956.+ GEORGIA-STRAIT SAN-JUAN-ISLANDS=ASSESSES THE RELATIVE<br>ABUNDANCE OF HERRING IN THEIR FIRST YEAR OF LIFE.=  | 870<br>870<br>870<br>870               |
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| KETCHEN K=FISH. RES. BOARD CAN. PAC. PROGR. REP. 63-35-37 LIB+ 45=<br>PRELIMINARY REPORT ON AGE AND GROWTH OF LEMON SOLES FROM BRITISH<br>COLUMBIA FISHING GROUNDS.+ TRAWL-FISHERY GEORGIA-STRAIT WEST-COAST<br>HECATE-STRAIT GROUNDFISH=RESULTS ON AGE AND GROWTH INVESTIGATIONS OF<br>THE LEMON SOLE ON THREE CHIEF FISHING GROUNDS IN B.C.=  | 872<br>872<br>872<br>872<br>872        |
| KETCHEN KS=FISH. RES. BOARD CAN. PAC. PROGR. REP. 73-54-56 LIB+ 47=AN<br>INVESTIGATION INTO THE DESTRUCTION OF GROUNDS BY DTTER TRAWLING GEAR.+<br>OTTER-TRAWL=RESULTS OF INVESTIGATION ON THE PROBLEM OF THE AMOUNT OF<br>DAMAGE CAUSED BY TRAWLS IS DISCUSSED.=   | 873<br>873<br>873<br>873               |
| KETCHEN KS=FISH. RES. BOARD CAN. PAC. PROGR. REP. 73-68-70 LIB+ 47=<br>STUDIES ON LEMON SOLE DEVELOPMENT AND EGG PRODUCTION.+ OTTER-TRAWL<br>GROUNDFISH=FACTS ON EARLY LIFE HISTORY OF THE LEMON SOLE.=   | 874<br>874<br>874                      |
| KETCHEN KS=FISH. RES. BOARD CAN. PAC. PROGR. REP. 84-64-67 LIB+ 50=A<br>STUDY OF THE WINTER TRAWL FISHERIES AT CAPE LAZO AND NANODSE BAY IN THE<br>STRAIT OF GEORGIA WITH SPECIAL REFERENCE TO THE CAPTURE OF LINGCOD.+<br>TRAWL-FISHERY LINE-FISHERY CAPE-LAZO NANODSE-BAY GROUNDFISH=RESULTS<br>INDICATE DESTRUCTION OF SMALL LINGCOD BY TRAWL FLEET HAS NO SIGNIFICANT<br>EFFECT UPON AVAILABILITY OF LINGCOD TO HAND LINE FISHERY.= | 875<br>875<br>875<br>875<br>875<br>875 |
| KETCHEN KS=FISH. RES. BOARD CAN. PAC. PROGR. REP. 102-10-13 LIB+ 55=<br>TRENDS IN THE GRAY COD FISHERY OF GEORGIA STRAIT.+ OTTER-TRAWL<br>NANOOSE-BAY SWANSON-CHANNEL=NO EVIDENCE IN STATISTICS OF CATCH AND<br>EFFORT THAT CO AY COD OF CEORCIA STRAIT IS REINC PEDUCED IN ARUNDANCE BY  | 876<br>876<br>876<br>876               |

EFFORT THAT GRAY COD OF GEORGIA STRAIT IS BEING REDUCED IN ABUNDANCE BY 876

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| OTTER TRAWL FISHERY.=   | 876  |
| KETCHEN KS FORRESTER CR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 105-11-15<br>LIB+ 55=MIGRATIONS OF THE LEMON SOLE (PAROPHRYS VETULUS) IN THE STRAIT<br>OF GEORGIA.+ TAGGING TAG-RECOVERIES OTTER-TRAWL GEORGIA-STRAIT<br>GROUNDFISH=GENERAL SUMMARY OF MOVEMENTS OF LEMON SOLE AND DESCRIPTION OF<br>GENERAL GEOGRAPHICAL LIMITS OF POPULATIONS EXPLOITED BY OTTER TRAWL<br>FISHERY IN GEORGIA STRAIT.=  | 877<br>877   |
| LEBRASSEUR RJ=FISH. RES. BOARD CAN. PAC. PROGR. REP. 103-19-21 LIB+ 55=<br>OCEANOGRAPHY OF BRITISH COLUMBIA MAINLAND INLETS. V1. PLANKTON<br>DISTRIBUTION.+ OCEANOGRAPHICAL-CONDITIONS=ILLUSTRATES THE IMPORTANT<br>INFLUENCE OF THE PHYSICAL ENVIRONMENT ON ABUNDANCE AND DISTRIBUTION OF<br>PLANKTON.=  | 878<br>878<br>878<br>878<br>878<br>878               |
| MACKAY DCG=BIOL. BOARD CAN. PAC. PROGR. REP. 11-18-21 LIB+ 31=THE EDIBLE<br>CRAB OF THE PACIFIC COAST.=PRESENTS PROBLEMS INVOLVED AND METHODS<br>EMPLOYED IN THE STUDY OF THE PACIFIC EDIBLE CRAB. COVERS DISTRIBUTION<br>FOOD, LIFE-HISTORY, COMPARISON OF FISHING METHODS, SEX AND SIZE<br>PROPORTIONS OF CATCH, AND MIGRATION.=  | 879<br>879<br>879<br>879<br>879<br>879               |
| MANZER JI=FISH. RES. BOARD CAN. PAC. PROGR. REP. 67-31 LIB+ 46=<br>INTERESTING MOVEMENTS AS SHOWN BY THE RECOVERIES OF CERTAIN SPECIES OF<br>TAGGED FISH.+ DOGFISH CHINOOK GROUNDFISH=PROVIDES A COMPARISON TABLE TO<br>MOVEMENTS OF TAGGED FISH.=  | 880<br>880<br>880<br>880                             |
| MANZER JI TAYLOR FHC=FISH. RES. BOARD CAN. PAC. PROGR. REP. 72-24-27 LIB<br>+ 47=THE RATE OF GROWTH IN LEMON SOLE IN THE STRAIT OF GEORGIA.+<br>BOAT-HARBOUR BAYNES-SOUND TAG-RECOVERIES GROUNDFISH=RECOVERY OF TAGGED<br>FISH PROVIDE AN EXCELLENT SOURCE OF DATA ON DETERMINATION OF GROWTH RATE<br>.=  | 881<br>881   |
| MANZER JI=FISH. RES. BOARD CAN. PAC. PROGR. REP. 106-24-28 LIB+ 56=<br>DISTRIBUTION AND MOVEMENT OF YOUNG PACIFIC SALMON DURING EARLY OCEAN<br>RESIDENCE.+ PINK CHUM SOCKEYE CHATHAM-SOUND JOHNSTONE-STRAIT=REPORT ON<br>PRELIMINARY FINDINGS ON DISTRIBUTION AND MOVEMENT OF PINK, CHUM, AND<br>SOCKEYE SALMON FROM JUNE TO SEPTEMBER.=  | 882<br>882<br>882<br>882<br>882<br>882               |
| MCHUGH JL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 43-6-7 LIB+ 40=GROWTH<br>DF YOUNG HERRING IN DEPARTURE-BAY IN 1939.=ACCOUNT OF THE GROWTH OF<br>YOUNG HERRING MARCH UNTIL JUNE.=   | 883<br>883<br>883                                    |
| MILNE DJ=FISH. RES. BOARD CAN. PAC. PROGR. REP. 85-80-82 LIB+ 50=THE<br>DIFFERENCE IN THE GROWTH OF COHO SALMON ON THE EAST AND WEST COASTS OF<br>VANCOUVER ISLAND IN 1950.+ WEST-COAST GEORGIA-STRAIT NANAIMO UCLUELET=<br>DIFFERENCE IN GROWTH BETWEEN COHO SALMON OFF THE EAST AND WEST COAST OF<br>VANCOUVER ISLAND INDICATE ANY REGULATION PERTAINING TO MINIMUM SIZES AND<br>UPENING DATES SHOULD DIFFER FOR EACH AREA IF THE SAME CONSERVATIONAL<br>RESULTS ARE TO BE ACHIEVED.= | 884<br>884<br>884<br>884<br>884<br>884<br>884<br>884 |
| MILNE DJ BALL EAR=FISH. RES. BOARD CAN. PAC. PROG. REP. 106-10-13 LIB+<br>56=THE MORTALITY OF SALMON WHEN CAUGHT BY TROLLING AND TAGGED OR<br>RELEASED UNTAGGED.+ GEORGIA-STRAIT TAGGING=PRELIMINARY STUDY TO ASSESS<br>MORTALITY CAUSED BY HOOKING, TAGGING AND RELEASING SMALL SALMON CAUGHT<br>BY COMMERCIAL TROLLING GEAR, SUMMER 1954.=  | 885<br>885<br>885<br>885<br>885                      |

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| MILNE DJ BALL EAR=FISH. RES. BOARD CAN. PAC. PROGR. REP. 111-14-16 LIB+   | 886     |
| 58=THE TAGGING OF SPRING AND CUHD SALMON IN THE STRAIT OF GEURGIA IN  | 886     |
| 1956.+ CHINODK TAG-RECOVERIES GEORGIA-STRAIT=SMALL CHINODK AND COHO   | 886     |
| FEEDING IN GEORGIA STRAIT ARE MOST EFFICIENTLY CAUGHT BY COMMERCIAL   | 886     |
| TROLLING GEAR USING BRASS EGG WOBBLER SPOONS FOR COHO AND KELP-KUTTER   | 886     |
| FLASHERS FOR SPRING.=   | 886     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP. 42-22-24 LIB+ 39=SALMON  | 887     |
| ANGLING RECORDS FROM COWICHAN BAY.+ COHO CHINOOK=RECORDS CATCH BY BOATS,  | 887     |
| LINES, LINEHOURS SPRINGS (CHINOOK) AND COHO FROM AUGUST TO NOVEMBER 1939  | 887     |
| .=  | 887     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PRUGR. REP. 47-19-20 LIB+ 41=RETURN  | 888     |
| OF MARKED COHOS TO THE COWICHAN RIVER, 1940.+ COHO TAG-RECOVERIES=  | 888     |
| PROVIDES INFORMATION ON HOMING TENDENCY AND EFFECT OF HATCHERY  | 888     |
| INTERVENTION ON EARLY LIFE HISTORY.=  | 888     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PRUGR. REP. 49-6-7 LIB+ 41=COWICHAN  | 889     |
| COHOES IN THE COMMERCIAL CATCH.+ COHO TAG-RECOVERIES GEORGIA-STRAIT   | 889     |
| COWICHAN-RIVER=RECORD OF MARKED COWICHAN COHO FOUND IN 1940 GEORGIA   | 889     |
| STRAIT COMMERCIAL CATCHES.=   | 889     |
| NEAVE F PRITCHARD AL=FISH. RES. BOARD CAN. PROGR. REP. 51-3-7 LIB+ 42=  | 890     |
| RECOVERIES OF COWICHAN RIVER COHO SALMON FROM THE 1938 BROOD YEAR   | 890     |
| EMPHASIZE THE VALUE OF MARKING EXPERIMENTS.+ TAG-RECOVERIES=FROM RETURNS  | 890     |
| OF MARKING EXPERIMENTS INFORMATION IS OBTAINED ON BEHAVIOR OF COWICHAN  | 890     |
| RIVER COHO FROM THE FRY STAGE UNTIL THEY RETURN AS ADULTS TO SPAWN.=  | 890     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP 54-12-14 LIB+ 43=SEASONAL   | 891     |
| SETTLEMENT OF SHIPWORM LARVAE.+ COWICHAN-BAY DEPARTURE-BAY LADYSMITH=   | 891     |
| HEAVIEST OUTBREAKS OF SHIPWORMS OCCUR DURING AUGUST TO JANUARY, BUT NO  | 891     |
| SEASON OF THE YEAR CAN BE REGARDED AS FREE FROM THE DANGER OF   | 891     |
| DESTRUCTIVE ATTACK IN GEORGIA STRAIT.=  | 891     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP 56-3 LIB+ 43='SETTING' OF   | 892     |
| DYSTERS IN BRITISH COLUMBIA.=GENERAL ACCOUNT OF 'SETTING' IN GEORGIA  | 892     |
| STRAIT.=  | 892     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP. 61-3 LIB+ 44=THE SPREAD  | 893     |
| DF THE JAPANESE LITTLE-NECK CLAM IN BRITISH COLUMBIA WATERS.+   | 893     |
| GEORGIA-STRAIT LADYSMITH-HARBOUR=CLAM HAS CONTINUED TO INCREASE AND   | 893     |
| SPREAD IN GEORGIA STRAIT.=  | 893     |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP. 61-4-5 LIB+ 44=THE LEGAL<br>SIZE-LIMIT IN RELATION TO THE SIZE AT WHICH BUTTER CLAMS MATURE.+ CLAM<br>SIDNEY DEPARTURE-BAY SEAL-ISLAND=SIZE LIMIT BASED ON AGE AT WHICH BUTTER<br>CLAMS BECOME CAPABLE OF SPAWNING AND AGE AT WHICH THEY ATTAIN LEGAL SIZE<br>.= |         |
| NEAVE F=FISH. RES. BOARD CAN. PAC. PROGR. REP. 61-16 LIB+ 44=PACIFIC  | 895     |
| OYSTER REPRODUCTION IN 1944 + LADYSMITH=BRIEF REPORT ON REPRODUCTION OF   | 895     |
| THE PACIFIC DYSTER AT LADYSMITH.=   | 895     |
| NEAVE F WICKETT WP=FISH. RES. BOARD CAN. PAC. PROGR. REP. 103-14-15 LIB+  | 896     |
| 55=TRANSPLANTATION OF PINK SALMON INTO THE FRASER VALLEY IN A BARREN  | 896     |
| YEAR.+ FRASER-RIVER JONES-CREEK=EXPERIMENT PRODUCED FIRST KNOWN LARGE   | 896     |

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| OUTPUT OF PINK SALMON IN THE FRASER RIVER SYSTEM IN A BARREN YEAR.=   | 896                                    |
| OUTRAM DN=FISH. RES. BOARD CAN. PAC. PROGR. REP. 87-32-33 LIB+ 51=<br>OBSERVATIONS ON THE RETENTION AND SPAWNING OF THE PACIFIC HERRING.+<br>DEPARTURE-BAY=FROM OBSERVATIONS AND ASSUMPTIONS, IT APPEARS THAT FRESH<br>WATER OR WATER OF LOW SALINITY COULD BE A STIMULANT WHICH CAUSE HERRING<br>TO SPAWN. PRELIMINARY TEST.=  | 897<br>897<br>897<br>897<br>897        |
| PRAKASH A MILNE DJ=FISH. RES. BOARD CAN. PAC. PROGR. REP. 112-7-9 LIB+<br>58=FOOD AS A FACTOR AFFECTING THE GROWTH OF COHO SALMON OFF THE EAST AND<br>WEST COAST OF VANCOUVER ISLAND, B.C.+ GEORGIA-STRAIT WEST-COAST=<br>DIFFERENCE IN SIZE OF COHO SALMON CAUGHT OFF THE EAST AND WEST COASTS OF<br>VANCOUVER ISLAND IS LIKELY RELATED TO DIFFERENT FOOD CONDITIONS.=                               | 898                                    |
| PRITCHARD AL=BIOL. BOARD CAN. PAC. PROGR. REP. 9-7-11 LIB+ 31=THE<br>TAGGING OF COHO SALMON IN BRITISH COLUMBIA DURING THE YEARS 1929 AND<br>1930.+ TAG-RECOVERIES QUEEN-CHARLOTTE-IS. BANKS-ISLAND SOOKE<br>COMPANIA-SOUND MILLBANK-SOUND GOOSE-ISLANDS FITZ-HUGH-SOUND=A RESUME OF<br>RETURNS FROM PROGRAMMES TO STUDY MIGRATION.=  | 899<br>899<br>899<br>899<br>899        |
| PRITCHARD AL=BIOL. BOARD CAN. PAC. PROGR. REP. 9-12-14 LIB+ 31=THE<br>TAGGING OF PINK AND CHUM SALMON IN BRITISH COLUMBIA IN 1929.+ SOOKE<br>JOHNSTONE-STRAIT DEEP-WATER GRANITE-BAY TAG-RECOVERIES=RESUME OF<br>RECOVERY PROGRAMMES IN JOHNSTONE STRAIT, SOOKE, DEEP WATER, AND<br>GRANITE BAY TO STUDY MIGRATION.=  | 900<br>900<br>900<br>900<br>900        |
| PRITCHARD AL=BIOL. BOARD CAN. PAC. PRUGR. REP. 29-16-20 LIB+ 36=FACTS<br>CONCERNING THE COHO SALMON (UNCORHYNCHUS KISUTCH) IN THE COMMERCIAL<br>CATCHES OF BRITISH COLUMBIA AS DETERMINED FROM THEIR SCALES.+<br>GEORGIA-STRAIT=CONTAINS INFORMATION OBTAINED FROM THE STUDY OF SCALES OF<br>COHO SALMON TAKEN IN COMMERCIAL CATCHES. PHOTOS.=  | 901<br>90 <b>1</b>                     |
| PRITCHARD AL TESTER AL=FISH. RES. BOARD CAN. PAC. PROG. REP. 47-14-18<br>LIB+ 41=THE FOOD OF SPRING SALMON IN BRITISH COLUMBIA WATERS IN 1940.+<br>STOMACH-CONTENTS SPECIES-LIST QUEEN-CHARLOTTE-IS. WEST-COAST CHINOOK<br>GEORGIA-STRAIT=REPORTS FINDINGS OF SPRING SALMON FOOD FROM 467 STOMACHS<br>COLLECTED IN 1940 FROM COMMERCIAL CATCHES.=   | 902<br>902<br>902<br>902<br>902        |
| PRITCHARD AL TESTER AL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 53-3-6<br>LIB+ 42=THE FOOD OF SPRING SALMON IN BRITISH COLUMBIA WATERS IN 1941.+<br>CHINOOK STOMACH-CONTENTS QUEEN-CHARLOTTE-IS. PRINCE-RUPERT SOOKE<br>GEORGIA-STRAIT COWICHAN-BAY SAANICH-INLET VICTORIA WEST-COAST=ANALYSIS<br>OF 537 SPRING SALMON STOMACHS TAKEN FROM FISH CAPTURED BY COMMERCIAL AND<br>SPORT FISHERMEN IN 1941.= | 903<br>903<br>903<br>903<br>903<br>903 |
| PRITCHARD AL=FISH. RES. BOARD CAN. PAC. PROGR. REP. 54-6-8 LIB+ 43=<br>SALMON ANGLING IN COWICHAN BAY, VANCOUVER ISLAND.+ CHINOOK COHO<br>=RECORDS NUMBER OF BOATS, LINES, LINE-HOURS, SPRINGS, AND COHO CAUGHT.=   | 904<br>904<br>904                      |
| PRITCHARD AL DELACY AC=FISH. RES. BOARD CAN. PAC. PROGR. REP. 58-8-12<br>LIB+ 44=PINK SALMON TAGGING EXPERIMENTS DURING 1943 IN SOUTHERN BRITISH<br>COLUMBIA AND THE PUGET SOUND AREA OF THE STATE OF WASHINGTON.+ TAGGING<br>TAG-RECOVERIES PUGET-SOUND=BRIEFLY OUTLINES METHODS USED AND RESULTS<br>OBTAINED TO 1943.=  | 905<br>905<br>905<br>905<br>905        |
| QUAYLE DB≠FISH. RES. BOARD CAN. PAC. PROGR. REP. 39-19-20 LIB+ 39=THE   | 906                                    |

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| BRITISH COLUMBIA CLAM PROBLEM.=BRIEF OUTLINE OF THE CLAM PROBLEM (DEPLETION OF THE CLAM RESOURCES).=  | 906<br>906                               |
| QUAYLE DB=FISH. RES. BOARD CAN. PAC. PROGR. REP. 43-8-9 LIB+ 40=JAPANESE  | 907                                      |
| OYSTER PROPAGATION.+ LADYSMITH-HARBOUR=SUMMARIZES RESULTS OF BREEDING   | 907                                      |
| FROM 1932 TO 1939 INCLUSIVE.=   | 907                                      |
| QUAYLE DB=FISH. RES. BOARD CAN. PAC. PROGR. REP. 46-6-11 LIB+ 40=HOW  | 908                                      |
| TO IDENTIFY SOME COMMON BRITISH COLUMBIA CLAMS.+ SPECIES-LIST CLAM=   | 908                                      |
| PROVIDES MEANS BY WHICH SUME COMMON B.C. CLAMS CAN BE IDENTIFIED.   | 908                                      |
| ILLUSTRATED.=   | 908                                      |
| QUAYLE DB=FISH. RES. BOARD CAN. PAC. PROGR. REP. 102-20-22 LIB+ 55=   | 909                                      |
| PACIFIC OYSTER PROPAGATION IN BRITISH COLUMBIA.+ LADYSMITH-HARBOUR  | 909                                      |
| PENDRELL-SOUND HOTHAM-SOUND=SUMMARIZES THE BREEDING OF THE PACIFIC  | 909                                      |
| OYSTER IN LADYSMITH HARBOUR PENDRELL SOUND AND HOTHAM SOUND FOR THE   | 909                                      |
| PERIOD FROM 1940-1954.=   | 909                                      |
| QUAYLE DB≂FISH. RES. BOARD CAN. PAC. PROGR. REP. 105-3-5 LIB+ 56≃GROWTH   | 910                                      |
| OF THE BRITISH COLUMBIA SHIPWORM.+ LADYSMITH-HARBOUR=ANALYSIS OF THE  | 910                                      |
| GROWTH RATE OF SHIPWORMS IN LADYSMITH HARBOUR. PHOTO.≃  | 910                                      |
| QUAYLE DB=FISH. RES. BOARD CAN. PAC. PROGR. REP. 107-7-10 LIB+ 56=THE   | 911                                      |
| RAFT CULTURE OF THE PACIFIC OYSTER IN BRITISH COLUMBIA.+  | 911                                      |
| LADYSMITH-HARBOUR=RAFT CULTURE OF THE PACIFIC OYSTER AT LADYSMITH   | 911                                      |
| HARBOUR.=   | 911                                      |
| STEVENSON JC=FISH. RES. BOARD CAN. PAC. PROGR. REP. 80-57-59 LIB+ 49=THE  | 912                                      |
| EXTENT OF HERRING SPAWNING IN BRITISH COLUMBIA IN 1949.=DISCUSSES THE   | 912                                      |
| 1949 HERRING SPAWNING SURVEY.=  | 912                                      |
| STEVENSON JC OUTRAM DN=FISH. RES. BOARD CAN. PAC. PROGR. REP. 93-13-16  | 913                                      |
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| NARVER DW=FISH. RES. BOARD CAN. TECH. REP. 323-55P LIB+ 72=A SURVEY OF<br>SUME POSSIBLE EFFECTS OF LOGGING ON TWO EASTERN VANCOUVER ISLAND STREAMS<br>STREAMS.+ JUMP-CREEK WOLF-CREEK COHO PRODUCTIVITY STEELHEAD=COMPARES<br>FISH POPULATIONS, INVERTEBRATE DRIFT, STREAM TEMPERATURES AND STREAM<br>CHANNEL WIDTHS IN CLEARCUT AND BURNED STREAM SECTIONS AND UPSTREAM<br>SECTIONS IN STANDING TIMBER.=         | 970<br>970<br>970<br>970<br>970<br>970        |
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| RAMEY CW WICKETT WP=FISH. RES. BOARD CAN. TECH. REP. 381-55P LIB+ 73=<br>EMPIRICAL RELATIONS BETWEEN PHYSICAL FACTORS IN COASTAL WATERS AND<br>HERRING POPULATION SIZES.=POSSIBLE EFFECTS OF A CHANGING OCEAN<br>ENVIRONMENT ON B.C. HERRING POPULATION IS EXAMINED. MATHEMATICAL MODELS<br>ARE PRESENTED.=   | 974<br>974<br>974<br>974<br>974               |
| SCRIVENER JC BUTLER TH=FISH. RES. BOARD CAN. TECH. REP. 241-42P LIB+ 71=  | 975   |

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| SCHULTZ LP=UNIV. WASH. PUBL. BIOL., 5TH PRINTING 2(4), 103-228 AUT+ 36=<br>KEYS TO THE FISHES OF WASHINGTON, OREGON AND CLOSELY ADJOINING REGIONS.+<br>SPECIES-KEY=NA=  | 1044<br>1044<br>1044   |
| SHAN KC=THESIS, INST, OCEANOGR., UNIV. B.C. AUT+ 62=SYSTEMATIC AND<br>ECOLOGICAL STUDIES ON COPEPODA IN INDIAN ARM, BRITISH COLUMBIA.+<br>INDIAN-ARM=NA=  | 1045<br>1045<br>1045   |
| SMITH AB=CONTR. CUSHMAN FOUND. FORUM. RES. 14(1), 1-15 AUT+ 63=<br>DISTRIBUTION OF LIVING PLANKTONIC FORAMINIFERA IN THE NORTHEAST PACIFIC.<br>=NA=   | 1046<br>1046<br>1046   |
| SMITH GM=FISH. RES. BOARD CAN. MS. REP. (BIOL.) 227-14P AUT+ 30=FURTHER<br>OBSERVATIONS ON THE ECOLOGY, RATE OF GROWTH AND FOOD SUPPLY OF SOME<br>PACIFIC CLAMS.+ CLAM=NA=  | 1047<br>1047<br>1047   |
| STEVENS E=FISH. RES. BOARD CAN. MS. REP. (BIOL.) 228-6P AUT+ 31=THE<br>SIGNIFICANCE OF DIATOMS AS FOOD FOR OYSTERS.+ OYSTER=NA=   | 1048<br>1048   |
| SWAN EF=EVOLUTION 7(3), 269-273 AUT+ 53=THE STRONGYLOCENTROTIDAE<br>(ECHINOIDEA) OF THE NORTHWEST PACIFIC.=NA=  | 1049<br>1049   |
| TAYLOR FHC=PH.D. THESIS, UNIV. CALIF. (SCRIPPS INST.), 351P AUT+ 57=<br>VARIATIONS AND POPULATIONS OF FOUR SPECIES OF PACIFIC COAST FLATFISH.+<br>GROUNDFISH=STUDY OF THE EXTENT OF VARIATION ALONG THE COAST IN FOUR<br>MERISTIC CHARACTERS (NUMBER OF VERTEBRAL CENTRA, AND NUMBFR OF RAYS IN<br>ANAL, DORSAL, AND PECTORAL FINS) IN FOUR SPECIES OF FLATFISH, PAROPHRYS<br>VETULUS, EOPSETTA JORDANI, MICROSTOMUS PACIFICUS AND CITHARICHTHYS<br>STIGMAEUS. GIVES INTERPRETATION OF POPULATION STRUCTURE OF EACH SPECIES<br>BASED ON THESE FINDINGS. THREE MORPHOMETRIC CHARACTERS (HEAD LENGTH, EYE<br>DIAMETER, AND BODY DEPTH) ARE STUDIED IN CITHARICHTHYS STIGMAEUS.= | 1050<br>1050<br>1050<br>1050<br>1050<br>1050<br>1050<br>1050 |
| TESTER AL=FISH. RES. BOARD CAN. MS. REP. (BIOL.) 325-13P AUT+ OO=THE<br>CAUSES OF FLUCTUATIONS IN THE ABUNDANCE OF HERRING (CLUPE^ PALLASII) IN<br>BRITISH COLUMBIA.=NA=  | 1051<br>1051<br>1051   |
| THOMAS B=THESIS, UNIV. OF BRITISH COLUMBIA AUT+ 71=EVOLUTIONARY<br>RELATIONSHIPS AMOUNG PEROMYSCUS FROM THE GEORGIA STRAIT, GORDON, GOLETAS<br>AND SCUTT ISLANDS OF BRITISH COLUMBIA, CANADA.+ GEORGIA-STRAIT=NA=   | 1052<br>1052<br>1052   |
| VERRILL AF=SMITHSONIAN INST. PUBL. 2140, HARRIMAN ALASKA EXPEDITION SER.<br>14-408P LIB+ 14=MONOGRAPH ON THE SHALLOW WATER STARFISHES OF THE NORTH<br>PACIFIC COAST FROM THE ARCTIC DEEAN TO CALIFORNIA=NA=   | 1053<br>1053<br>1053   |
| WAILES GH=(VANCOUVER) MUS. AND ART NOTES 7(SUPPL.10), 2P AUT+ 34=<br>MARINE ROTATORIA FROM BRITISH COLUMBIA.=NA=  | 1054<br>1054   |
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| PRITCHARD AL=PROC. 5TH PAC. SCI. CONGR. (1933) 5-3733-3740 LIB+ 34=  | 1101         |
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| SPECIAL REFERENCE TO PACIFIG SALMON IN BRITISH COLUMBIA WATERS.+ SOCKEYE   | 1101         |
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| STUDIES ON THE AGE OF THE COHO SALMON (ONCORYNCHUS KISUTCH) AND THE  | 1102         |
| SPRING SALMON (ONCORHYNCHUS TSHAWYTSCHA) IN BRITISH COLUMBIA.+ CHINOOK=  | 1102         |
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| DETERMINATION OF COHO AND CHINOOK SALMON.=   | 1102         |
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| DUAYLE DB=PROC. NAT. SHELLFISH. ASS. 49-50-53 LIB+ 59=PREDICTION OF<br>OYSTER SETTING IN BRITISH COLUMBIA (CRASSOSTREA GIGAS).+<br>LADYSMITH-HARBOUR PENDRELL-SOUND=AN EMPIRICAL METHOD OF DETERMINING TIME<br>AND APPROXIMATE INTENSITY OF SETTING IS DESCRIBED.=   | 1104<br>1104<br>1104<br>1104  |
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| SAUNDERS LG=ANNALS ENT. SOC. AMER. 21-521-545 LIB+ 28=SOME MARINE<br>INSECTS OF THE PACIFIC COAST OF CANADA.=NA=   | 1105<br>1105  |
| SEKI H FULTON J=MYCOPATHOL. MYCOL. APPL. 38-61-70 GSM+ 69=INFECTION OF<br>MARINE COPEPODS BY METSCHNIKOWIA SP.+ GEORGIA-STRAIT=DESCRIBES A DISEASE<br>OF COPEPODS IN GEORGIA STRAIT WATERS DURING WINTER AND EARLY SPRING.<br>DEALS WITH EVIDENCE ON OCCURENCE OF PATHOGENIC YEASTS (METSUNIKOWIA<br>SP.) IN COPEPODS AND ITS ECOLOGICAL SIGNIFICANCE.=  | 1106      1106     1106 |
| SEKI H=APPLIED MICROBIOL. 17-252-255 LIB+ 69=MARINE MICROORGANISMS<br>ASSOCIATED WITH THE FOOD OF YOUNG SALMON.+ PRODUCTIVITY SAANICH-INLET=<br>A MICROBIOLOGICAL STUDY MADE IN 1968 ON GASTROINTESTINAL CONTENTS OF<br>YOUNG SALMON IN SAANICH INLET, INDICATED MICROBIAL BIOMASS WAS<br>QUANTITATIVILY INFLUENCED BY COMPOSITION OF FOOD INGESTED AND BY<br>SAMPLING TIME.=  | 1107<br>1107<br>1107<br>1107<br>1107<br>1107  |
| SHELDON RW EVELYN TPT PARSONS TR=LIMMOL. OCEANOGR. 12-367-375 GSM+ 67=<br>ON THE OCCURENCE AND FORMATION OF SMALL PARTICLES IN SEAWATER.=NA=   | 1108<br>1108  |
| SHEPARD MP STEVENSON JC=TRANS. 9TH BRITISH COLUMBIA NATUR. RESOURCES<br>CONF. 131-190 LIB+ 56=ABUNDANCE, DISTRIBUTION AND COMMERCIAL EXPLOTATION<br>OF THE FISHERIES RESOURCES OF CANADA'S WEST COAST.+ FRASER-RIVER SOCKEYE<br>SKEENA-RIVER NASS-RIVER RIVERS-INLET SMITH-INLET GROUNDFISH CHUM COHO<br>CHINOOK STEELHEAD DOGFISH SPECIES-LIST=EXAMINATION OF EACH MAJOR<br>FISHERIES WITH A VIEW TO DETERMINE HOW THOROUGHLY STOCKS OF FISH ARE<br>BEING EXPLOITED IN THE 1950'S. INCLUDES TABLE OF ESTIMATES OF BASIC<br>STOCKS AND AVERAGE CATCH.= | 1109<br>1109<br>1109<br>1109<br>1109<br>1109<br>1109  |
| SMITH GM=CAN. FIELD NATUR. 42-163-165 LIB+ 28=NOTES ON THE DISTRIBUTION<br>OF SOME DECAPOD CRUSTACEA COLLECTED NEAR SIDNEY, B.C.+ SIDNEY<br>SPECIES-LIST=NOTES ON DISTRIBUTION OF DECAPOD CRUSTACEA FROM FOUR BEACH<br>TYPES NEAR SIDNEY.=   | 1110<br>1110<br>1110<br>1110  |
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| STEVENSON JC OUTRAM DN=PROV. B.C. DEPT. FISH. REP., 1952, 57-84 LIB+ 53=<br>RESULTS OF INVESTIGATION OF THE HERRING POPULATIONS ON THE WEST COAST<br>AND LOWER EAST COAST OF VANCOUVER ISLAND IN 1952-53, WITH AN ANALYSIS OF  | 1113<br>1113<br>1113  |

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TAYLOR FHC=INT. NORTH PAC. FISH. COMM. BULL. 1-105-128 LIB+ 55=THE1118PACIFIC HERRING (CLUPEA PALLASI) ALONG THE PACIFIC COAST OF CANADA.+1118WEST-COAST GEORGIA-STRAIT QUEEN-CHARLOTTE-IS.=SUMMARY OF1118EXPLOITATION AND REGULATORY MEASURES. REVIEW OF RESEARCH UNDERTAKEN AND1118PROPOSED.=1118

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| RESULTS OF THE BRITISH COLUMBIA HERRING INVESTIGATION AND THEIR ECONOMIC<br>BEARING.=REVIEWS BRIEFLY STUDIES ON LOCAL POPULATIONS OF HERRING AND<br>LENGTH AND AGE COMPOSITION OF RUNS. THESE TWO TOPICS DISCUSSED FROM<br>ECONOMIC POINT OF VIEW.=  | 1121<br>1121<br>1121<br>1121<br>1121 |
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| WAILES GH=(VANCOUVER) MUS. AND ART. NOTES 3(3), 25-37 LIB+ 28=FRESH-<br>WATER AND MARINE PROTOZOA FROM BRITISH COLUMBIA, WITH DESCRIPTIONS OF<br>NEW SPECIES.+ SPECIES-LIST=PROVIDES A LIST OF 8.C. PROTOZOA.=   | 1127<br>1127<br>1127                 |
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| WAILES GH=(VANCOUVER) MUS. AND ART NOTES 4(4), 159-169 LIB+ 29=THE<br>MARINE ZOO-PLANKTON OF BRITISH COLUMBIA.=DISCUSSES MARINE ZOOPLANKTON<br>OF B.C. WHICH ARE OF OUTSTANDING BIOLOGICAL OR ECONOMIC INTEREST.=  | 1129<br>1129<br>1129                 |
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DISPOSAL OF OIL REFINERY WASTES, GIVES INDUCATION OF PROBLEMS THAT MAY BE ENCOUNTERED AND HOW THEY SHOULD BE DEALT WITH.= ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1953, 2-11P (P. VROOM, MS. REP. 1972-4) UPL+ 53=PINK SALMON TAGGING AT HELL'S GATE-1953. + PINK FRASER-RIVER TAGGING TAG-RECOVERIES=OUTLINES 1953 TAGGING PROGRAM OF PINK SALMON DURING MIGRATION AT HELL'S GATE. PROGRAM WAS TO ESTIMATE THE POPULATION OF PINK SALMON PASSING ABOVE HELL'S GATE.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1954, 1-109P, ILLUS, 1153 CHARTS (P. VROOM, MS. REP. 1972-4) LIB OPL+ 54=THE SALMON PROBLEMS 1153 ASSOCIATED WITH THE PROPOSED FLOOD CONTROL PROJECT ON THE OKANAGAN RIVER 1153 IN BRITISH COLUMBIA.+ SOCKEYE=REVIEW OF THE FISHERY PROBLEM, ADDITIONAL 1153 STUDIES AND OBSERVATIONS. RESULTS OF A BIOLOGICAL ENGINEERING 1153 INVESTIGATION OF THE FISHERY PROBLEM DURING 1952-53. PHOTOS. 1153 ILLUSTRATED.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1954, 2 TABS, FOLD 1154 MAP, DIAGS. (P. VROOM, MS. REP. 1972-4) OPL+ 54=REPORT ON MODEL STUDIES 1154 OF PROPOSED DROP STRUCTURES AND FISH PASSAGE FACILITIES FOR THE OKANAGAN 1154 FLOOD CONTROL PROJECT.=PRESENTS PRELIMINARY WORK, A ONE-TENTH SCALE 1154 MODEL STUDY, ONE-TWENTY-FIVE SCALE MODEL STUDY, SUMMARY OF TESTS, 1154 CALCULATION AND DATA SHEETS.= 1154

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1954, 4-44P (P. 1155 VROOM, MS. REP. 1972-4) OPL+ 54=THE PROBLEM OF RESTORATION OF SALMON 1155 IN THE SALMON RIVER.+ SOCKEYE=REPORT INCLUDES DESCRIPTION OF THE 1155 WATERSHED, SALMON MAINTENANCE AND RESTORATION, AGRICULTURE AND 1155 IRRIGATION. RECOMMENDS SETTING MAXIMUM RATES OF DIVERSION ON PRESENT AND 1155 FUTURE LICENSES FOR WITHDRAWAL OF WATER DURING LOW FLOW TO SAFEGUARD 1155 SPAWNING AREAS.=

ANONYMOUS=CAN. DEPT. FISH. VANCOUVER. GENERAL REP. 1955, 3-102P, TABS 1156 FOLD MAPS (P. VROOM, MS. REP. 1972-4) OPL+ 55=A REPORT ON THE FISH 1156 FACILITIES AND FISHERIES PROBLEMS RELATED TO THE FRASER AND THOMPSON 1156 RIVER DAM SITE INVESTIGATIONS.+ FRASER-RIVER=SUMMARY OF A STUDY TO 1156 DEVELOPE POWER AT A SERIES OF SITES ON THE FRASER AND THOMPSON RIVER. 1156 PRESENTS INFORMATION ON THE FISHERIES INVOLVED, PRELIMINARY 1156 SPECIFICATIONS OF FISH PROTECTIVE FACILITIES REQUIRED, AND AN ASSESSMENT 1156 UF THE EFFECTS OF DEVELOPMENT ON THE FISHERY.= 1156

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1955, 4-15P (P. 1157 VROOM, MS. REP. 1972-4) OPL+ 55=INVESTIGATION DF SALMON LOSSES IN 1157 IRRIGATION DIVERSIONS OF THE NICOLA RIVER AND THE PRELIMINARY TEST 1157 RESULTS OF EXPERIMENTAL SCREENING DEVICES.=SUMMARIZES THE INVESTIGATION 1157 INCLUDING THE SAMPLING PROGRAM AND THE TESTING OF TWO TYPES OF SCREENING 1157 DEVICES ON IRRIGATION DITCHES. PHOTOS.= 1157

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1956, 1158 1-13P, TABS (P. VROOM, MS. REP. 1972-4) OPL+ 56=AN ANALYSIS OF FISHING 1158 LICENCE HOLDERS IN BRITISH COLUMBIA, 1953-1955.=PRESENTS DETAILED SURVEY 1156 OF PERSONS HOLDING COMMERICAL FISHING LICENCES DURING THE 3 YEARS (1953-158).=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1957, 1-14P, ILLUS., 1159 CHARTS, MAPS (P. VROOM, MS. REP. 1972-4) OPL LIB+ 57=THE SPAWNING OF 1159

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PINK SALMON IN THE FRASER RIVER SYSTEM ABOVE HOPE 1955.+ TAG-RECOVERIES1159TAGGING FRASER-RIVER=REVIEWS TAGGING PROGRAM ON THE FRASER RIVER NEAR1159HOPE. PROGRAM WAS TO CALCULATE AN ESTIMATE OF TOTAL POPULATION OF PINK1159SALMON MIGRATING TO UPSTREAM SPAWNING GROUNDS. PHOTOS. ILLUSTRATED.=1159

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1957, 2-36P, CHARTS, 1160 TABS, FIELD MAPS (P. VROOM, MS. REP. 1972-4) OPL+ 57=SALMON SPAWNING 1160 GROUND SURVEY ON THE SOMASS-RIVER SYSTEM 156.+ ASH-RIVER STAMP-RIVER 1160 GREAT-CENTRAL-LAKE=THE 1956 SPAWNING GROUND SURVEY IS PRESENTED. PURPOSE 1160 OF INVESTIGATION WAS TO LOCATE AND ASSESS SPAWNING GROUNDS, OBTAIN 1160 POPULATION ESTIMATES, AND DETERMINE TIME OF MIGRATION OF THE SPECIES.= 1160

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1957, 5-39P, FIGS., 1161 MAPS (P. VROOM, MS. REP. 1972-4) LIB OPL+ 57=A REPORT ON THE FISHERIES 1161 PROBLEMS RELATED TO THE POWER DEVELOPMENT OF THE CHEAKAMUS RIVER SYSTEM. 1161 =DESCRIBES FISHERIES PROBLEMS POSED BY THE POWER PROJECT, AND POSSIBLE 1161 SOLUTIONS. BIOLOGICAL-ENGINEERING DATA PRESENTED.= 1161

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1958, 1-105P, CHARTS 1162 TABS., (P. VROOM, MS. REP. 1972-4) OPL+ 58=FISHERIES PROBLEMS RELATED TO 1162 THE PROPOSED MORAN DAM ON THE FRASER-RIVER.+ SOCKEYE PINK CHINOOK COHO 1162 CHUM STEELHEAD=CONSIDERS PROBLEMS ASSOCIATED WITH MORAN DAM. TOPICS 1162 INCLUDE HYDROELECTRIC AND FLOOD CONTROL POTENTIAL, BASIS OF EVALUATION 1162 OF FISHERY PROBLEMS, PRESENT AND POTENTIAL FISHERIES RESOURCE, 1162 ENVIRONMENTAL CHANGES CAUSED BY DAM, EFFECTS OF ENVIRONMENTAL CHANGES 1162 ON DOWNSTREAM MIGRANTS AND UPSTREAM MIGRANTS, PASSAGE OF DOWNSTREAM 1162 MIGRANTS, UPSTREAM PASSAGE OF ADULT SALMON, ELTC.= 1162

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1958-3. DIAGS., TABS., FOLD MAPS (P. VROOM, MS. REP. 1972-4) OPL GSM+ 58=PUNTLEDGE-RIVER , THE FISHERIES PROBLEMS ASSOCIATED WITH THE POWER DEVELOPMENT OF THE PUNTLEDGE RIVER, VANCOUVER ISLAND, B.C..=REPORT DESCRIBES THE SYSTEM, OUTLINES PROBLEMS AND SUMMARIZES INFORMATION OBTAINED FROM INVESTIGATION . GIVES SUGGESTIONS ON MEASURES CONSIDERED NECESSARY FOR PROTECTION OF SALMON RUNS.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER, GENERAL REP. 1958, 5-99P, MAPS 1164 (P. VROOM, MS. REP. 1972-4) OPL+ 58=THE SALMON SPAWNING GROUNDS OF THE 1164 FRASER RIVER BELOW HOPE AND OF THE HARRISON RIVER IN RELATION TO THE 1164 DREDGING OF SHIPPING CHANNELS.+ FRASER-RIVER HARRISON-RIVER=REPORT ON 1164 THE DISTRIBUTION OF SPAWNING GROUNDS, SIZE OF SALMON POPULATIONS AND 1164 PERTINENT CHARACTERISTICS OF THE FRESH WATER STAGE OF THE LIFE OF THE 1164 SALMON.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1958, 6-38P, FIGS, 1165 TABS. (P. VRODM, MS. REP. 1972-4) OPL+ 58=BIOLOGICAL SURVEY OF THE 1165 NIMPKISH-RIVER SYSTEM, 1957.+ SOCKEYE CHUM PINK CHINOOK COHO=PRESENTS 1165 TOPICS ON HISTORICAL BACKGROUND, PROPOSED HYDROELECTRIC DEVELOPMENT, 1165 BIOLOGICAL SURVEYS, LIMNOLOGICAL SURVEY, SPAWNING GROUND SURVEY, AND 1165 RECOMMENDATIONS.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1959, 1-66P, DIAGS., 1166 TABS., FOLD MAPS (P. VROOM, MS. REP. 1972-4) OPL+ 59=INDIAN-RIVER 1166 FISHWAYS.=COPY OF ADVERTISEMENT, INSTRUCTIONS TO TENDERS, FORM OF TENDER 1166 SCHEDULE, GENERAL CONDITIONS, SPECIFICATIONS AND PLANS FOR THE INDIAN 1166 RIVER FISHWAYS PROJECT.= 1166

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ANONYMUUS=CAN. DEPT. FISH., VANCOUVER. GENERAL RER. 1959,3-17P, FIGS., 1167 FOLD MAPS, TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 59=A PLAN FOR AN 1167 ARTIFICAL SPAWNING CHANNEL FOR PINK SALMON AT SETON CREEK.≃SUMMARIZES 1167 RESULTS OF STUDIES, RECOMMENDS CONSTRUCTION OF AN ARTIFICAL SPAWNING 1167 CHANNEL TO PRESERVE AND EXTEND THE PINK SALMON RUNS. TOPICS INCLUDE SIZE 1167 AND DISTRIBUTION OF PINK SALMON RUNS, ARTIFICAL SPAWNING CHANNEL, WATER 1167 AND PROPERTY REQUIREMENTS, RELATIONSHIP OF THE SPAWNING CHANNEL TO 1167 SETON CREEK HYDROELECTRIC DEVELOPMENT.= 1167

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1959, 6-34P, CHARTS, 1168 MAPS, TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 59=THE FISHERIES PROBLEM 1168 ASSOCIATED WITH THE RECONSTRUCTION AND EXPANSION OF THE DOMESTIC WATER 1168 SUPPLY FACILITIES OF SEYMOUR RIVER, NORTH VANCOUVER, B.C.=INCLUDES 1168 INFORMATION ON THE SEYMOUR RIVER WATERSHED, THE PROPOSED DEVELOPMENT, 1168 AND RECOMMENDATIONS. ASSESSMENT OF FISHERIES PROBLEMS.= 1168

ANONYMOUS=CAN. DEPT. FISH., VANCUUVER. GENERAL REP. 1959, 10-6P, MAPS 1169 (P. VROOM, MS. REP. 1972-4) OPL+ 59=THE PUNTLEDGE-RIVER DIVERSION.= 1169 OUTLINES THE PUNTLEDGE RIVER DIVERSION SYSTEM. STATES THAT IF THE 1169 DIVERSION IS NOT PROPERLY SCREENED AT ITS ENTRANCE FROM THE RIVER LOSSES 1169 ON DOWNSTREAM MIGRANT FRY AND FINGERLINGS MAY OCCUR.= 1169

ANUNYMUUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1960, 2-2P (P. VROOM 1170 MS.REP. 1972-4) OPL+ 60=DESCRIPTIVE NOTES ON OTHER FISH FACILITIES ON 1170 THE SOMASS RIVER SYSTEM.+ SOMASS-RIVER GREAT-CENTRAL-LAKE=TOPICS INCLUDE 1170 SPROAT FALLS FISHWAYS, STAMP FALLS FISHWAYS, GREAT CENTRAL LAKE DAM AND 1170 SPROAT LAKE WEIR, SCREENED INTAKE FOR ALBERNI PULP MILL WATER SUPPLY, 1170 AND SCREENED INTAKE FOR CITY OF ALBERNI WATER SUPPLY.= 1170

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1961, 1-36P, TABS., 1171 (P. VROOM, MS. REP. 1972-4) OPL+ 61=INTERIM REPORT ON PROPOSED KRAFT 1171 PULP MILLS ON THE FRASER RIVER NEAR PRINCE GEURGE WITH RECOMMENDATIONS 1171 FOR THE TREATMENT AND DISPOSAL OF WATERS.=PRESENTS EVALUATION OF THE 1171 FISHERY THAT COULD BE AFFECTED, TUGETHER WITH ASSESSMENT OF EFFECTS OF 1171 PULPMILL WASTE DISPOSAL AND OF PRACTICAL MEANS OF WASTE REDUCTION OR 1171 TREATMENT. CONCLUSIONS AND RECOMMENDATIONS SET FORTH GUIDING PRINCIPLES 1171 FOR REQUIREMENTS NECESSARY FOR PROTECTION OF THE FISHERY.= 1171

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1961, 3-40P, CHARTS, 1172 TABS. (P. VRODM, MS. REP. 1972-4) OPL GSM+ 62=BIG QUALICUM RIVER 1172 BIOLOGICAL SURVEY 1960-61.+ CHINOOK COHO CHUM PINK BIG-QUALICUM-RIVER= 1172 PRESENTS RESULTS OF FIELD SURVEYS CONDUCTED IN 1959 AND DISCUSSES 1172 BIOLOGICAL PROBLEMS ASSOCIATED WITH THE FINAL DESIGN OF THE PROJECT. 1172 INCLUDES ADULT SALMON STUDY, JUVENILE SALMON STUDY, AND ENVIRONMENTAL 1172 STUDY INFORMATION.=

ANUNYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1961, 4-3P (P. VROOM 1173 MS. REP. 1972-4) UPL+ 61=THE JONES CREEK SPAWNING CHANNEL.+ JONES-CREEK= 1173 DESCRIBES HYDRO-ELECTRIC PRUJECT, FISHERIES PROBLEM, STUDIES, AND 1173 SPAWNING CHANNEL.= 1173

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER GENERAL REP. 1961, 6-12P (P. VROOM 1174 MS. REP. 1972-4) OPL+ 61=BIG QUALICUM RIVER FISHERIES DEVELOPMENT 1174 PROJECT.+ BIG-QUALICUM-RIVER=DESCRIBES BIG QUALICUM RIVER WATER SHED, 1174 REASONS FOR SELECTING THE SITE, DESCRIPTION OF THE PROPOSED PROJECT, 1174 AND OUTLINE OF COSTS AND BENEFITS OF THE PROJECT.= 1174

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1961, 7, PAGES NOT 1175 NUMBERED (P. VROOM, MS. REP. 1972-4) OPL+ 61=SUMMARIES OF RESEARCH UN 1175 THE FISH-POWER PROBLEM AND RELATED WORK (REV. ED., 1961).=PROVIDES UP-1175 TU-DATE INDEX OF FISHERIES RESEARCH ON THE FISH-POWER PROBLEM IN B.C. 1175 SUMMARY AND GUIDE TO CURRENT STATUS OF RESEARCH.= 1175 ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP., 37P OPL GSM+ 62= 1176 REPORT OF THE PUNTLEDGE RIVER COMMISSION.+ PUNTLEDGE-RIVER= PRESENTED IN 1176 IN TWO PARTS- PART ONE, THE DIFFERENCE OF OPINION THAT AROSE BETWEEN THE 1176 POWER COMMISSION AND FISHERIES DEPARTMENT IS EXAMINED IN DETAIL AND TWO 1176 RECOMMENDATIONS ARE MADE. PART TWO DEALS WITH WIDER ISSUES AND WITH 1176 GENERAL TYPE OF PROBLEM WHICH THE PUNTLEDGE IS A SPECIFIC INSTANCE. ALSO 1176 INCLUDES THIRTY BRIEFS SUBMITTED DURING THE COURSE OF THE HEARING.= 1176 ANONYMOUS=CAN. DEPT. FISH. VANCOUVER. GENERAL REP. 1962, 1-46P, CHARTS, 1177 TABS. (P. VROOM, MS. REP. 1972-4) OPL GSM+ 62=BIG QUALICUM RIVER 1177 BIOLOGICAL SURVEY 1960-61.+ CHUM COHO CHINOOK STEELHEAD 1177 BIG-QUALICUM-RIVER=DESCRIBES RESULTS OF BIOLOGICAL STUDIES CONDUCTED 1177 IN THE SECUND OF A THREE YEAR PRECONTROL STUDY AND COVERS THE PERIOD OF 1177 SEPTEMBER, 1960 TO AUGUST, 1961. INCLUDES ADULT SALMON STUDY, JUVENILE 1177 SALMON STUDY, AND ENVIRONMENTAL STUDY RESULTS.= 1177 ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1962, 2-46P, DIAGS., 1178 TABS. 7P. VROOM, MS. REP. 1972-4) OPL LIB+ 62=FRASER-RIVER CHUM SALMON 1178 INVESTIGATION, 1960.+ TAGGING TAG-RECOVERIES=AN ATTEMPT TO ASSESS 1178 PRESENT (1960) CONDITIONS OF CHUM SALMON RUNS AND DETERMINE FACTORS 1178 RESPONSIBLE FOR APPARENT DECLINE IN STRENGTH OF ESCAPEMENTS TO CERTAIN 1178 SPAWNING AREAS AND CATCHES OF CHUM SALMON IN AREA 29 COMMERCIAL FISHERY. 1178 PHOTOS. ILLUSTRATED.= 1178 ANUNYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1962, 3-76P, DIAGS., 1179 FOLD MAPS (P. UROOM, MS. REP. 1972-4) OPL LIB+ 62=PROGRESS SUMMARY OF 1179 OF FRASER-RIVER BOARD FISHERIES INVESTIGATIONS, 1961.=RESULTS OF THE 1179 1961 FISHERIES INVESTIGATION AND INTEGRATES SOME OF THE RESULTS FROM 1179 PRECEDING YEAR'S INVESTIGATION. SUMMARY OF FISHERIES WORK PROPOSED FOR 1179 1962-63 PERIOD. TABLES OF DATA COLLECTED.= 1179 ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1962, 4-35P, TABS. 1180 (P. VROOM, MS. REP. 1972-4) OPL GSM LIB+ 62=BRIEF OUTLINING THE NEED FOR 1180 FISH PROTECTIVE FACILITIES AT THE PUNTLEDGE RIVER HYDROELECTRIC 1180 DEVELOPMENT.=OUTLINES NEED FOR FISH FACILITIES TO PROTECT FISH BEING 1180 DEPLETED BY PUNTLEDGE RIVER HYDROELECTRIC DEVELOPMENT. OUTLINES 1180 BACKGRUUND OF FISHERIES PROBLEM AND SUGGESTS ANSWERS. INCLUDES LIST OF 1180 INDUSTRIAL PROJECTS AFFECTING FISHERY RESOURCE IN B.C. AND YUKON. 1180 ILLUSTRATED. (REPORT TO COMMISSIONER, PUNTLEDGE RIVER INQUIRY).= 1180 ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP., 1962, 7-21P, TABS, 1181 (P. VRODM, MS. REP. 1972-4) OPL+ 62=PUNTLEDGE-RIVER INQUIRY REBUTTAL.= 1181 TOPICS INCLUDE, EVIDENCE OF SPRING SALMON MIGRATION AT STOTAN FALLS AT 1181 FLOWS HIGHER THAN THAT RANGE STUDIED BY B.C. POWER COMMISSION, MORTALITY 1181 TO ADULT SPRING SALMON BECAUSE OF INJURY AND DELAY AT POWERHOUSE 1181 TAILRACE, RELATIONSHIP BETWEEN THE DECLINE OF EARLY SPRING SALMON RUN TO 1181 THE PUNTLEDGE RIVER AND THE COMMERICAL AND SPORTS FISHING CATCHES, 1181 VARIATION IN EXPECTED RETURN OF SPRING SALMON WITH REFERENCE TO AGE 1181 ANALYSIS, FYKE NET TESTS FOR PROPORTION OF FRY CAUGHT IN INTAKE CANAL.= 1181

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1962, 8-45P, CHARTS, 1182 TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 62=FRASER-RIVER CHUM SALMON 1182

INVESTIGATION, 1961.+ TAGGING=AN ATTEMPT TO ASSESS THE PRESENT CONDITION 1182 UF CHUM SALMON RUNS AND DETERMINE FACTORS RESPONSIBLE FOR THE APPERENT 1182 DECLINE.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1963, 1-31P, CHARTS, 1183 TABS., FOLD MAPS (P. VROOM, MS. REP. 1972-4) UPL+ 63=FRASER-RIVER CHUM 1183 SALMON INVESTIGATION, 1962.+ TAGGING=AN ATTEMPT TO ASSESS THE PRESENT 1183 CONDITION UF CHUM SALMON RUNS AND DETERMINE FACTORS RESPONSIBLE FOR THE 1183 APPARENT DECLINE.= 1183

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1963, 4-222P, DIAGS. 1184 TABS. (P. VROOM, MS. REP. 1972-4) OPL GSM+ 63=PROGRESS REPORT FISH 1184 CULTURE DEVELOPMENT BRANCH, SUMMARIES OF CURRENT PROJECTS.=REVIEW OF 1184 CURRENT PROJECTS (1962) WITH DESCRIPTIONS OF THE ACTIVITIES OCCURING 1184 WITHIN THESE PROJECTS.= 1184

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1963, 5-35P (P. 1185 VRODM, MS. REP. 1972-4) OPL LIB+ 63=ANNUAL REPORT TO THE SALMON 1185 MANAGEMENT COMMITTEE ON THE STATUS OF THE CHUM SALMON STOCKS OF THE 1185 JOHNSTONE-STRAIT STUDY AREA AND ON THE PROJECTS FOR 1963.+ TAGGING= 1185 DESCRIBES EFFECTS OF DIFFERENTIAL EXPLOITATION ON FRASER RIVER STOCKS. 1185 PRESENTS THEORETICAL MODEL FOR THE ULTIMATE REHABILITATION OF THE STUDY 1185 AREA STOCK TO OPTIMUM LEVEL AND ANTICIPATED LEVEL OF RETURN OF 1963 1185 STUCK. OUTLINES SUGGESTED FISHING PATTERN FOR THE 1963 CHUM SALMON 1185 SEASON.= 1185

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1963, 7-21P (P. 1186 VRODM, MS. REP. 1972-4) OPL LIB+ 63=ANNUAL REPORT TO THE SALMON 1186 MANAGEMENT COMMITTEE ON THE STATUS OF THE ODD-YEAR PINK SALMON STOCKS OF 1186 THE JOHNSTONE-STRAIT STUDY AREA AND ON THE PROSPECTS FOR 1963.=DESCRIBES 1186 PRESENT (1963) STATUS OF SALMON STOCKS. PRESENTS ESTIMATE ON MAGNITUDE 1186 UF 1963 STUDY AREA RETURN. DUTLINES SUGGESTED FISHING PATTERN FOR 1963 1186 PINK SALMON SEASON.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1964, 3-5P 1187 TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 64=COMMERCIAL FISHING LICENCE 1187 REPORT, BRITISH COLUMBIA, 1963.=ANALYSIS OF COMMERICAL FISHING LICENCES 1187 ISSUED IN B.C. DURING 1963. COVERS FIRST YEAR OF OPERATION OF NEW SINGLE 1187 LICENCE NUMBER FOR FISHERMEN AND A PUNCH CARD LICENCE RECORD SYSTEM.= 1187

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1964, 4-43P, MAPS, 1188 TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 64=THE FOURTH ANNUAL 1188 JOHNSTONE-STRAIT REPORT ON THE STATUS OF THE EVEN YEAR PINK SALMON 1188 STUCKS AND OF THE CHUM SALMON STOCKS OF THE JOHNSTONE STRAIT STUDY AREA 1188 AND ON THE PROSPECTS FOR 1964.=ANALYSIS OF STATUS OF STOCKS INDIGENOUS 1188 TO JOHNSTONE STRAIT STUDY AREA, EFFECT OF FISHERY ON THOSE STOCKS AND 1188 ANTICIPATED RETURN FOR COMING YEAR ARE DISCUSSED.= 1188

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 4-26P, DIAGS., 1189 TABS., MAPS (P. VRCOM, MS. REP. 1972-4) DPL GSM+ 65=A PROGRESS SUMMARY 1189 DF THE STRAIT DF GEORGIA CHINOOK AND COHO INVESTIGATION.+ GEORGIA-STRAIT 1189 =TOPICS INCLUDE BACKGROUND INFORMATION, RESSULTS OF THE TAGGING STUDIES, 1189 PRESENT SITUATION REGARDING THE HARVEST OF COHO AND CHINOOK SALMON 1189 STUCKS, CATCH OF GRILSE BY THE SPORT FISHERY, AND PROPOSED CHANGES TO 1189

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ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 8-51P, CHARTS, 1190 TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 65=THE FIFTH ANNUAL REPORT ON 1190 THE STATUS OF THE ODD-YEAR PINK SALMON STOCKS AND OF THE CHUM SALMON 1190 STOCKS OF THE JOHNSTONE-STRAIT STUDY AREA AND ON THE PROSPECTS FOR 1965. 1190 =ANALYSIS OF STATUS OF STOCKS INDIGENOUS TO JOHNSTONE STRAIT STUDY AREA, 1190 EFFECT OF FISHERY ON THOSE STOCKS AND ANTICIPATED RETURN FOR COMING YEAR 1190 ARE DISCUSSED.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 13 (P. VROOM, 1191 MS. REP. 1972-4) OPL LIB+ 65=SUMMARIES OF FISHERIES RESEARCH ON THE 1191 POLLUTION PROBLEM BY FISHERIES AND RELATED AGENCIES IN BRITISH COLUMBIA. 1191 =PROVIDES UP-TO-DATE (1965) INDEX OF FISHERIES RESEARCH ON THE 1191 FISHERIES-POLLUTION PROBLEM IN B.C.. SUMMARY OF RESEARCH PROJECTS.= 1191

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 15-2P (P. VROOM, MS. REP. 1972-4) OPL+ 65=COSTS ASSOCIATED WITH THE PROTECTION OF SALMON IN THE FRASER, SKEENA AND NASS RIVERS, 1950-65.+ NASS-RIVER FRASER-RIVER SKEENA-RIVER=NA=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1966, 3-32P, TABS., 1193 MAPS (P. VROOM. MS. REP. 1972-4) UPL LIB+ 66=THE 1966 JOHNSTONE STRAIT 1193 REPORT ON THE STATUS OF THE EVEN-YEAR PINK SALMON STOCKS AND OF THE CHUM 1193 SALMON STOCKS OF THE JOHNSTONE-STRAIT STUDY AREA, AND ON THE PROSPECTS 1193 FUR 1966.=ANALYSIS OF STOCKS INDIGENOUS TO JOHNSTONE STRAIT STUDY AREA, 1193 EFFECT OF FISHERY ON THOSE STOCKS AND ANTICIPATED RETURN FOR COMING YEAR 1193 ARE DISCUSSED.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1966, 4-196P, DIAGS. 1194 TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 66=SALMON DEVELOPMENT 1194 TECHNIQUES, THEIR PRESENT STATUS AND THEIR POSSIBLE APPLICATIONS TO THE 1194 BRITISH COLUMBIA SALMON STOCKS.=EXAMINES AVAILABLE INFORMATION 1194 CONCERNING PRESENT STATUS OF THE MAJOR KNOWN SALMON ENHANCEMENT 1194 TECHNIQUES. TENTATIVE CONCLUSIONS WITH REGARD TO APPLICABILITY OF EACH 1194 TECHNIQUE IS SUMMARIZED.=

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1969,11953-101P, ILLUS. (P. VROOM, MS. REP. 1972-4) OPL+ 69=CONSERVATION AND1195PROTECTION BOARD. ANNUAL REPORT FOR 1969.=INCLUDES INFORMATION ON1195FUNCTIONS OF BRANCH, ORGANIZATION OF BRANCH, FISHERIES OF 1969 (REPORTS1195FROM DISTRICTS ONE TO TEN.) PHOTOS.=1195

ANONYMOUS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1969, 13-97P, DIAGS. 1196 TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 69=REPORT ON THE FISHERIES 1196 PROBLEMS ASSOCIATED WITH THE PROPOSED DIVERSION OF WATER FROM THE 1196 SHUSWAP RIVER TO OKANAGAN LAKE.=PROVIDES INFORMATION ON THE FISHERY 1196 PROBLEMS AND REQUIREMENTS FOR PROTECTION OF THESE STOCKS, AND TO 1196 CONSIDER ALTERNATE MEANS OF OBTAINING WATER WHICH WOULD AVOID OR 1196 MINIMIZE THE FISHERY PROBLEMS.= 1196

ANONYMOUS=CAN. DEPT. FISH. FURESTRY, FISH. SERV., PAC. REGION, GENERAL 1197 REP. 1970, 3-45P, TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 70=PROPUSED 1197 CHINDOK AND COHO SALMON HATCHERY DEVELOPMENT PROGRAM FOR BRITISH 1197 COLUMBIA.+ GEORGIA-STRAIT=PRESENTS A PROPOSAL FOR HATCHERY DEVELOPMENT. 1197 ASSESSMENT OF U.S. HATCHERIES, INDICATES PRODUCTION LEVEL AND THE 1197 SENERAL LOCATION OF HATCHERIES REQUIRED TO MAKE A SIGNIFICANT CONTRIB-UTION TO GEORGIA STRAIT SPORT FISHERIES. OUTLINES REQUIREMENTS FOR LOCATION OF SUCCESSFUL HATCHERIES. ADVANCES RECOMMENDATIONS ON HATCHERY LOCATION AND DESIGN.=

ANONYMOUS=CAN. DEPT. FISH. FURESTRY, FISH. SERV., PAC. REGION, ECONOMICS 1198 BRANCH, REP. 1971, 3-17P. (P. VROOM, MS. REP. 1972-4) OPL+ 71=SOME 1198 ECONOMIC ASPECTS OF COMMERCIAL FISHING IN BRITISH COLUMBIA.=SUMMARY 1198 REPORT OF RESULTS FROM THE FISHERY ECONOMIC SURVEY 1970. PROVIDES 1198 INFORMATION ON DATA GATHERING, PATTERN OF RESPONSE, INCOME OF FISHERMEN, 1198 FISHING INCOME TREND, AND FISHERMEN'S FUTURE PLANS.= 1198

ANONYMOUS=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, GENERAL 1199 REP. 1971, 6-92P, TABS. (P. VROOM, MS. REP. 1972-4) OPL GSM LIB+ 71= 1199 PROSPECTUS OF ON-GOING AND RECENT PAST STUDIES ON PACIFIC SALMON 1199 (ONCORHYNCHUS SP) SCALES AND OTHER HARD PARTS, BY THE SCALE GROUP OF THE 1199 INFORMAL COMMITTEE ON CHINOUK AND COHO.+ CHINOUK COHO SOCKEYE PINK CHUM= 1199 ACCOUNT OF PROJECTS DEALING WITH PACIFIC SALMON SCALES AND OTHER HARD 1199 PARTS. PROJECTS ARE ORDERED BY SPECIES AND WITHIN SPECIES GROUPS, 1199 PROJECTS ARE ORDERED BY AGENCY.= 1199

ARGUE AW=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, TECH. REP. 1200 1970, 11-259P, DIAGS., TABS. (P. VROOM MS. REP. 1972-4) OPL LIB+ 70=A 1200 STUDY OF FACTORS AFFECTING EXPLOITATION OF PACIFIC SALMON IN THE 1200 CANADIAN GANTLET FISHERY OF JUAN-DE-FUCA-STRAIT.+ SOCKEYE PINK COHO CHUM 1200 CHINOOK GILLNET SEINING TROLLING=RESULTS OF STUDY, BASED ON VARIOUS 1200 FIELD DATA AND CATCH STATISTICS, OUTLINES FACTORS AFFECTING EXPLOITATION 1200 FACTORS INCLUDE- SEASONAL TIMING OF EXPLOITABLE SALMON, DISTRIBUTION AND 1200 AMOUNT OF FISHING GEAR, RELATIVE GEAR EFFICIENCY ACCESSIBILITY OF SALMON 1200 TO THE GEAR, AND VULNERABILITY OF SALMON TO GEAR. ALL SPECIES AND GEARS 1200 ARE COVERED TO VARYING DEGREES. INCLUDES INFORMATION ON ESTIMATION OF 1200 EXPLOITATION AND IMPLICATIONS FOR MANAGEMENT.= 1200

ARGUE AW=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, TECH. REP.12011971, 8-71P, CHARTS, TABS. (P. VROUM, MS. REP. 1972-4) OPL GSM+ 71=AN1201ASSESSMENT OF THE 1967 CLOSURE OF EASTERN JUAN-DE-FUCA-STRAIT TO1201COMMERCIAL SALMON FISHING.=COMPARES COMMERCIAL AND SPORT CATCH1201STATISTICS FOR FOUR YEARS BEFORE AND AFTER JUAN DE FUCA STRAIT CLOSURE,1201DISCUSSES NON-REGULATORY FACTORS WHICH MAY CAUSE FLUCTUATIONS IN SPORT1201CATCH OF FALL COHO AND ASSESSES CLOSURE.=1201

ARGUE AW HEIZER SR=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, 1202 MS. REP. 1971, 1-210P (P. VROOM, MS. REP. 1972-4) OPL GSM+ 71=BASIC 1202 TAG AND RECOVERY INFURMATION FOR COHO AND CHINOUK TAGGED IN BRITISH 1202 COLUMBIA MARINE WATERS BY THE CANADA DEPARTMENT OF FISHERIES AND 1202 FURESTRY 1963-1969.+DIXON-ENTRANCE HECATE-STRAIT JOHNSTONE-STRAIT 1202 GEORGIA-STRAIT JUAN-DE-FUCA-STRAIT TAGGING TAG-RECOVERIES 1202 COMPUTER-FORMAT=PRESENTS TAG AND RECAPTURE DATA IN DISCRETE TIME AND 1202 AREA GROUPS. TABLES FOR TAGGING, SHOW NUMBER OF FISH TAGGED, RECAPTURED, 1202 PERCENT RECAPTURED, TAGGING DATES, TAGGING GEAR, TAG TYPE, DETAILED TAG 1202 AND RECOVERY INFORMATION FOR EVERY TAG RECOVERY.= 1202

ARGUE AW PITRE KR=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION,1203TECH. REP. 1972, 3-95P (P. VROOM, MS. REP. 1972-4) OPL GSM+ 72=1203DISTRIBUTION OF COMMERCIAL AND SPORT VESSELS FISHING PACIFIC SALMON IN1203SOUTHERN BRITISH COLUMBIA MARINE WATERS, BASED ON OVERFLIGHTS FROM 19651203

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BOYD RU=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, TECH. REP.12051971, 6-1VP (P. VROOM, MS. REP. 1972-4) OPL GSM+ 71=JUVENILE HERRING1205'RACIAL' INVESTIGATION.+ COMPUTER-FORMAT BARKLEY-SOUND WEST-COAST=1205DISCUSSES USE OF MULTIVARIATED ANALYSIS TO DETECT AND QUALIFY PUPULATION1205DIFFERENCES IN JUVENILE HERRING ON THE PASIS OF MORPHOMETRIC AND1205MERISTIC DATA. APPENDIX INCLUDES COMPUTER PROGRAMS IN FORTRAN FOR1205DISCRIMINANT ANALYSIS AND DISCRIMINANT CLASSIFICATION.=1205

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CAMPBELL BA BUCHANAN DR=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, 1210 REP. 1955, 1-55P, TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 55=ECONOMIC 1210 1210 SURVEY OF SALMON FISHERMEN IN BRITISH COLUMBIA 1953 (INTERIM REPORT) BASED ON RECORDS OBTAINED FROM 226 FISHERMEN.+ SEINING GILLNET TROLLING 1210 SOCKEYE PINK CHUM COHO CHINOUK=BASED ON RECORDS OBTAINED FROM 266 SALMON 1210 FISHERMEN. RECORDS INCLUDE INFORMATION ON 1953 FISHING ACTIVITIES. 1210 ANALYSIS COVERS RANGE IN NET CASH OPERATING RECEIPTS, ANALYSIS OF 1210 RECEIPTS, EXPENSES, AND OTHER INCOME, AS WELL AS FACTORS AFFECTING 1210 FISHING RECEIPTS AND EXPENDITURES.= 1210

CAMPBELL BA=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1960, 1211 11-34P, CHARTS, TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 60=A REVIEW 1211 OF THE FISHING EARNINGS OF SALMON AND HALIBUT FISHERMEN IN BRITISH 1211 COLUMBIA, 1957 AND 1958.+ GILLNET SEINING TROLLING=TOPICS INCLUDE SURVEY 1211 METHODS, NUMBER OF FISHERMEN, EARNINGS FOR ONE ENTERPRISE FISHERMEN, 1211 EARNINGS OF COMBINATION FISHERMEN, NET INCOME OF ALL SALMON FISHERMEN BY 1211 GROUPS, AND NET INCOME FOR DIFFERENT GROUPS OF FISHERMEN- 1957 AND 1958. 1211 1211

CAMPBELL BA YOUNG SL=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1212 1962, 1-35P, TABS., MAPS (P. VROOM, MS. REP. 1972-4) OPL LIB+ 62=AN 1212 ANALYSIS OF GROSS RETURNS FROM FISHING IN BRITISH COLUMBIA BY TYPE OF 1212 GEAR LICENCED 1961 FISHING YEARS.+ SEINING TROLLING GILLNET VICTORIA 1212 SOOKE WEST-COAST GEORGIA-STRAIT=INFORMATION WAS TAKEN FROM 1961 SALES 1212 SLIPS. INFORMATION INCLUDES GROSS RETURNS OF SALMON SEINERS, TROLLERS, 1212 GILLNETTERS AND RETURNS OF LONGLINERS AND TROLLERS FROM SPECIES OTHER 1212 THAN SALMON. = 1212

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CAMPBELL BA HSU H=CAN. DEPT. FISH., VANCOUVER. ECONOMICS BRANCH, REP. 1218 1967, 3-4P, TABS (P. VRODM, MS. REP. 1972-4) OPL+ 67=REVIEW OF TRENDS IN 1218 LICENCING OF COMMERCIAL FISHING VESSELS IN BRITISH COLUMBIA IN 1966 AND 1218 1967.=PRESENTS TABLES ON COMPARISON OF COST OF ALL LICENCE FEES 1218 CHARGEABLE TO BOAT AND CREW UNDER ULD AND NEW REGULATIONS, REVIEW OF 1218 1966 AND 1967 DEVELOPMENTS IN VESSEL LICENCING, AGE OF VESSELS LICENCED 1218 FOR FIRST TIME IN 1967, LENGTH OF VESSELS LICENCED FOR FIRST TIME IN 1218 1967, AND TYPE OF GEAR REPORTED BY VESSELS LICENCED FOR FIRST TIME IN 1218 1967.= 1218

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CLAY CH=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1950, 1-8P (P. VROOM, MS. REP. 1972-4) OPL+ 50=A PRELIMINARY REPORT WITH RECOMMENDATIONS ON THE OBSTRUCTIONS AT SPROAT FALLS 1950.+ TAGGING=PRESENTS REVIEW OF CONDITIONS, SPROAT FALLS SALMON TAGGING IN 1950, SUGGESTED REMEDIAL MEASURES, AND COST OF CONSTRUCTION.= 1221

CLAY CH HOURSTON WR=CAN. DEPT., FISH., VANCOUVER. GENERAL REP. 1955, 6-28P (P. VROOM, MS. REP. 1972-4) OPL+ 55=FISHERIES PROBLEMS RELATED TO MAJOR INDUSTRIAL PROJECTS ON THE PACIFIC COAST 1949-1955.=A REVIEW AND 1222 SUMMARY OF HYDRO-ELECTRIC PROJECTS, WATER SUPPLY PROJECTS, FLOOD CONTROL PROJECT AND PROJECTS INVOLVING POLLUTION STUDIES. OUTLINES FISHERIES PROBLEMS.= 1222

CLAY CH=ATHENS, PROC. I.U.C.N. TECH. MEETING, 1959, VOL. IV, 346-3511223(P. VROOM, MS. REP. 1972-4) DPL+ 59=THE UKANAGAN RIVER FLOOD CONTROL1223PROJECT.+ SOCKEYE=TOPICS INCLUDE, OKANAGAN SALMON RUN, FLOOD CONTROL1223PROJECT, CHANGES IN ENVIRONMENT FOR SOCKEYE, SOLUTIONS TO CRITICAL1223CHANGES, AND OPERATION OF THE PRUJECTS.=1223

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DICKSON FV=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, TECH. REP. 1971, 10-30P, DIAGS., TABS. (P. VROOM, MS. REP. 1972-74) OPL+ 71= HARRISON RIVER-INCHES CREEK OXYGEN MONITORING PROGRAM, 1970-71.=COMPARES DISSOLVED OXYGEN LEVELS IN INTERGRAVEL WATER FLOWS AT DESIGNATED SITES ON THE HARRISON RIVER SYSTEM AND ON INCHES CREEK IN AT EFFORT TO CORRELATE EGG TO FRY SURVIVAL WITH DISSOLVED OXYGEN LEVELS.= 1225

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FRASER FJ=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION. TECH. 1227 REP. 1970, 6-19P, ILLUS., TABS. (P. VROOM, MS. REP. 1972-74) UPL LIB+ 1227 70=THE 1970 REPORT ON CHUM SALMON STOCKS OF THE JOHNSTONE STRAIT-FRASER 1227 RIVER STUDY AREA, AND THE PROSPECTS FUR 1970.+ TAGGING FRASER-RIVER CHUM 1227 JOHNSTONE-STRAIT GEORGIA-STRAIT BIG-QUALICUM-RIVER=ANALYSIS OF CHUM 1227 SALMON STOCKS OF THE JOHNSTONE STRAIT-FRASER RIVER STUDY AREA. INCLUDES 1227 SUMMARY OF 1969 RETURN, FORECAST OF 1970 LEVEL OF ABUNDANCE, AND 1227 RECOMMENDATIONS FOR 1970 COMMERCIAL CHUM SALMON FISHERY. PRESENTS BRIEF 1227 RESUME ON CHUM PRODUCTION FROM BIG QUALICUM DEVELOPMENT PROJECT, AND 1227 REPORT ON JOHNSTONE STRAIT CHUM TAGGING PROGRAM FOR 1969. PHOTOS.= 1227

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SINCLAIR WF=CAN. DEPT. FISH. FORESTRY, FISH. SERV., PAC. REGION, 1253 PUBLISHED REPORT, 74P OPL GSM+ 72=THE BRITISH COLUMBIAN SPORT FISHERMEN. 1253 =REPORTS FINDINGS OF SURVEYS COMDUCTED DURING SUMMERS OF 1970 AND 1971. 1253 SURVEYS DETERMINE NUMBER OF RESIDENTS WHO PARTICIPATE IN B.C. TIDAL 1253 FISHERY ANNUALLY, DETERMINE PATTERN OF THEIR ACTIVITIES AND ESTABLISH 1253 SPORT FISHING'S IMPORTANCE RELATIVE TO THE OTHER OUTDOOR RECREATIONAL 1253 ACTIVITIES AVAILABLE IN B.C.. SOME INFORMATION ON FRESH WATER FISHERIES 1253 IS PROVIDED. = 1253

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| UPL+ OO=COWICHAN.=NA=  | 1269 |
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| DPL+ 00=CLAYOQUOT SOUND.=NA=   | 1272 |
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| OPL+ OO=NOOTK4.=NA=  | 1273 |
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| OPL+ 00=QUATSIND.=NA=  | 1275 |

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TODD IS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1964, 1-23P, CHARTS, 1278 MAPS, TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 64=FRASER-RIVER CHUM SALMON 1278 INVESTIGATION, 1963.=TOPICS INCLUDE ESCAPEMENT ESTIMATES, TEST-FISHING, 1278 CHARACTER OF THE 1963 MIGRATION, AND SUGGEST FISHING PATTERN FOR 1964.= 1278

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TODD IS=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 2-31P, CHARTS, 1280 TABS. (P. VROOM, MS. REP. 1972-4) OPL LIB+ 65=FRASER-RIVER CHUM SALMON 1280 INVESTIGATION, 1964.=SUMMARIZES RESULTS OF 1964 INVESTIGATION. 1280 INFORMATION INCLUDES ENUMERATION OF ESCAPEMENT, TEST-FISHING, AGE, SEX 1280 AND SIZE COMPOSITION OF STOCK, THE CHARACTER OF THE 1964 MIGRATION, 1280 EXPLOITATION IN 1964 AND SUGGESTED FISHING PATTERN FOR 1965.= 1280

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WALKER CE LISTER DB=CAN. DEPT. FISH., VANCOUVER. GENERAL REP. 1965, 1282 5-46P, DIAGS., TABS. (P. VROOM, MS. REP. 1972-4) OPL+ 65=BIG QUALICUM 1282 RIVER BIOLOGICAL ASSESSMENT STUDIES, 1961 TO 1962.+ TAGGING CHUM COHO 1282 CHINOOK OCEANOGRAPHICAL-CONDITIONS BIG-QUALICUM-RIVER=TOPICS INCLUDE 1282 ADULT SALMON STUDY, JUVENILE SALMON STUDY, DISCHARGE AND WATER 1282 TEMPERATURE AND RELATIONSHIPS TO SURVIAL AND MIGRATION, UTILIZATION OF 1282 STREAM BY SPAWNERS, WATER TEMPERATURES AND SALINITIES, AND ESTUARY 1282 TAGGING OF CHUM SALMON.= 1282

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| LANGER DE=CANADA DEPT. ENVIRONMENT, ENVIRONMENTAL QUALITY UNIT. MEMO 34-<br>1-S2, 34-5-1-13 TO F BOYD GSM+ 72=HEAVY METAL MONITURING IN HOWE-SOUND.<br>+ GROUNDFISH DOGFISH=REPORTS ON THE SEPTEMBER, 1972 SAMPLING OF MARINE<br>ANIMALS FISHED BY THE PUBLIC IN HOWE SOUND TO DETERMINE LEVELS OF<br>MERCURY CONTENT. INCLUDES MEMO WHICH INDICATES SPECIES COLLECTED,<br>SAMPLING STATIONS, AND ANALYSIS OF MATERIAL. INCLUDES SUMMARY OF ALL<br>MERCURY DETERMINATIONS ON MARINE FORMS COLLECTED IN HOWE SOUND SINCE<br>1970. GIVES A COPY OF A NEWS RELEASE ON A CLOSURE OF HOWE SOUND FISHERY.<br>= | 1389<br>1389<br>1389<br>1389<br>1389<br>1389<br>1389<br>1389 |
| ANONYMOUS=INFORMATION CANADA, OTTAWA, 1971. 217P GSM+ 71=REVIEW OF THE<br>FISHERIES RESEARCH BOARD OF CANADA. 1969-1970.=OUTLINES THE 1969-1970<br>ACTIVITIES OF THE BIOLOGICAL STATION-NANAIMO, VANCOUVER LABORATORY-<br>VANCOUVER, PACIFIC ENVIRONMENT INSTITUTE-WEST VANCOUVER, AS WELL AS<br>OTHER CANADIAN FRB INSTITUTES.=   | 1390<br>1390<br>1390<br>1390<br>1390                         |
| ALDERDICE DF VELSEN FPJ=J. FISH. RES. BOARD CAN., 28-1545-1562, GSM+ 71=<br>SUME EFFECTS OF SALINITY AND TEMPERATURE ON EARLY DEVELOPMENT OF PACIFIC<br>HERRING (CLUPEA PALLASI).=RESULTS OF 13 DIFFERENT SALINITY-TEMPERATURE<br>COMBINATIONS ON HERRING EGGS INCUBATED IN THE LAB ARE DISCUSSED. DATA<br>INCLUDES INFORMATION ON DEVELOPMENT RATE, HATCHING LARVAL LENGTH,<br>PERCENT TOTAL HATCH, AND PERCENT VIABLE HATCH. PHOTOS.=  | 1391<br>1391<br>1391<br>1391<br>1391<br>1391                 |
| ALLAN J=VANCOUVER PUBLIC AQUARIUM NEWSL. 14(6) GSM+ 70=BRITISH COLUMBIA<br>ROCKFISHES.+ GROUNDFISH=PRESENTS GENERAL INFORMATION ON B.C. ROCKFISHES<br>TO THE PUBLIC.=  | 1392<br>1392<br>1392   |
| BAILEY M=CANADA DEPT. ENVIRONMENT, FISH. SERV., PAC. REG., JULY 1971<br>GSM+ 71=DOCUMENTATION OF A TAGGING SORT LIST PROGRAM.+ COMPUTER-FORMAT=<br>OUTLINES HOW TO USE AND MANIPULATE A SORT LIST PROGRAM ON IBM 360 AT UBC<br>. PROGRAM LISTS AND SORTS TAG AND RECAPTURE DATA WHICH IS ON COMPUTER<br>CARDS. DETAILS HOW EACH CARD IN THE DECK CAN BE MANIPULATED BY THE USER.<br>=  | 1393<br>1393<br>1393<br>1393<br>1393<br>1393                 |
| BERNARD FR=VELIGER 13-33-36 GSM+ 70=OCCURRENCE OF THE SPIROCHAETE GENUS<br>CRISTISPIRE IN WESTERN CANADIAN MARINE BIVALVES.=CRISTISPIREA WAS FOUND<br>IN TWELVE OF 62 SPECIES EXAMINED. RECORDS OCCURRENCE OF CRISTISPIRA IN<br>THE DIGESTIVE SYSTEMS OF BIVALVIA SPECIES.=  | 1394<br>1394<br>1394<br>1394                                 |
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MARLES EW=PAC. MAR. SCI. REP. 73+1-82P ENV. CAN. FISH. MAR. SERV., MAR.1395SCI. DIRECTORATE, PACIFIC REGION, 1230 GOVERNMENT ST., VICTORIA, B.C.1395GSM+ 73=BIBLIOGRAPHY OF OCEANOGRAPHIC INFORMATION FOR THE INSIDE WATERS1395OF THE SOUTHERN BRITISH COLUMBIA COAST VOLUME 1 - PHYSICAL OCEANOGRAPHY.1395+DCEANOGRAPHICAL-CONDITIONS GEORGIA-STRAIT JUAN-DE+FUCA-STRAIT=1395BIBLIOGRAPHY OF PHYSICAL OCEANOGRAPHIC INFORMATION FROM GEORGIA STRAIT1395AND JUAN DE FUCA STRAIT.=1395

MARLES EW=PAC. MAR. SCI. REP. 73-2-46P ENV. CAN. FISH. MAR. SERV., MAR. 1396 SCI. DIRECTORATE. PACIFIC REGION, 1230 GOVERNMENT ST., VICTORIA, B.C. 1396 GSM+ 73=BIBLIOGRAPHY OF OCEANOGRAPHIC INFORMATION FOR THE INSIDE WATERS 1396 OF THE SOUTHERN BRITISH COLUMBIA COAST VOLUME 2 - BIOLOGICAL 1396 DCEANOGRAPHY.+ GEORGIA-STRAIT JUAN-DE-FUCA-STRAIT TAGGING=BIBLIOGRAPHY 1396 UF BIOLOGICAL OCEANOGRAPHIC INFORMATION IN GEORGIA STRAIT AND JUAN DE 1396 FUCA STRAIT. DEALS MAINLY WITH ENVIRONMENTAL BIOLOGY. IN TWO SECTIONS 1396 MARINE BIOLOGY AND FISHERIES BIOLOGY.≈ 1396

MARGOLIS L=FROM- A SYMPOSIUM ON DISEASES OF FISHES AND SHELLFISHES. (SF SNIESZKO, ED.) AM. FISH. SOC. SPEC. PUBL. 5-190-208 GSM+ 70=NEMATODE DISEASES OF MARINE FISHES.+ PARASITES=REVIEWS PATHOGENIC EFFECTS OF NEMATODES IN MARINE FISH. COVERS ALMOST ALL SUBFAMILIES OF NEMATODES UCCURRING IN MARINE FISH.= 1397

SMITH HD=UNPUBLISHED PAPER, PAC. BIOL. STATION, NANAIMO. GSM+ 73=FURTHER1398INFORMATION ON THE DISTRIBUTION AND ABUNDANCE OF JUVENILE SALMON IN THE1398NANAIMO ESTUARY AND HARBOUR, 1972-1973.+ NANAIMU CHINOOK COHO SEINING1398CHUM=SUMMARIZES NEW QUANTITATIVE DATA FOR JUVENILE CHUM, CHINOOK AND1398COHO CATCHES BY THE PACIFIC BIOLOGICAL STATION IN THE NANAIMO ESTUARY1398AND ENVIRONS IN 1972 AND 1973. INCLUDES UBSERVATIONS ON OCCURRENCE OF1398HERRING AND OTHER FISHES.=1398

TAYLOR FHC=FISH. RES. BUARD CAN. BULL. 143-81P GSM+ 64=LIFE HISTORY AND 1399 PRESENT STATUS OF BRITISH COLUMBIA HERRING STOCKS.+ WEST-COAST 1399 BARKLEY-SOUND=TOPICS INCLUDE THE GENERAL LIFE HISTORY OF THE HERRING, 1399 RECOGNITION OF HERRING POPULATIONS, HISTORY OF FISHING ON MAJOR 1399 POPULATIONS, SCIENTIFIC BASIS FOR MANAGEMENT, REVIEW OF RESEARCH LEADING 1399 TO THE 'WEST COAST EXPERIMENT', 'WEST COAST EXPERIMENT' TO TEST THE 1399 QUOTA SYSTEM OF MANAGEMENT, RELATIONSHIP OF SPAWN DEPOSITION TO STRENGTH 1399 OF RESULTING YEAR-CLASS IN OTHER SUBDISTRICTS, PRESENT STATUS OF STOCKS, 1399 AND PRUSPECTS FOR THE FUTURE.= 1399

WALDICHUK M=FISH. RES. BOARD CAN., 1960 STUDIES NO. 630 GSM+ 60=1400CONTAINMENT OF RADIOACTIVE WASTE FOR SEA DISPOSAL AND FISHERIES OFF THE1400CANADIAN PACIFIC COAST.+ GROUNDFISH LONG-LINE TRAWLING=DISCUSSES THE1400DEPOSAL OF RADIOACTIVE WASTES AND ITS POSSIBLE INTERFERENCE WITH THE1400FISHERIES.=1400

ARGUE AW GRAHAM CC=CANADA DEPT. ENVIRONMENT, FISH. SERV., PAC. REG.,1401MEMO 10-5-8 TO EL HOLLETT. GSM+ 72=SELECTIVITY OF THE AREA 18 HERRING1401GILLNET FISHERY IN 1972.+ SEINING GILLNET TAGGING GANGES NANOOSE-BAY=1401EXAMINES THE EFFECTIVENESS OF THE GILLNET AS COMPARED TO THE SEINE NET.1401PARTICULAR ATTENTION IS GIVEN TO THE GILLNET SELECTIVITY WITH RESPECT TO1401LENGTH, AGE AND MATURITY OF HERRING. DISCUSSES POSSIBILITIES OF TAGGING1401AND EXPLOITATION RATE OF AREA 18 GILLNETS. PHOTO.=1401

HARRIS G ARGUE AW=CANADA DEPT. ENVIRONMENT, FISH. SERV., PAC. REG., MEMO 1402

32-5-2-1-FD3 TO EL HOLLETT AND GW WINSBY. GSM+ 72=SUMMARY OF SIZE+AGE 1402 SAMPLING OF CHINOUK AND COHO SALMON FROM COMPETITIVE SPORT AND TROLL 1402 FISHERIES AT DEEP BAY AND CAMPBELL RIVER JUNE 1 TO AUGUST 30, 1972.+ 1402 TROLLING CHINOUK COHO DEEP-BAY CAMPBELL-RIVER=PRESENTS SPORT SAMPLE, 1402 TROLL SAMPLE, CAMP SAMPLE, ADDITIONAL SAMPLES, AND MATURITY ANALYSIS. 1402 TABULATES NUMBERS OF CHINOOK AND COHO SAMPLED FOR FURK LENGTH, SCALES, 1402 STOMACHS AND GONADS.= 1402

POPE CA=CANADA DEPT. ENVIRONMENT, FISH. SERV., PAC. REG., MEMO 32-5-2-1-1403FD3 TO AW ARGUE GSM+ 73=CHINOOK AND COHO DATA - FRY AND SMOLTS.+ CHINOOK1403CDHO=INCLUDES TABLES WHICH INDICATE SCALE STUDIES AND DATA AVAILABLE14031959-1972.=1403

ARGUE AW=CANADA DEPT. ENVIRUNMENT, FISH. SERV., PAC. REG., FILE REPORT. 1404 GSM+ 74≂TABLE GIVING DATA RECORDS AVAILABLE FROM OPERATIONS IN GEORGIA 1404 STRAIT. RE- SALMON AND HERRING. NOT OTHERWISE- AVAILABLE.+ CHINOOK COHO 1404 CHUM GEURGIA-STRAIT TRAPPING SEINING TROLLING STOMACH-CONTENTS=AN 1404 UNPUBLISHED TABLE INDICATING DATA FROM FISHERIES OPERATIONS BRANCH 1404 PROGRAMS PERTAINING TO GEURGIA STRAIT SALMON AND HERRING FOR WHICH MS, 1404 TECHNICAL OR MEMORANDA REPORTS ARE NOT AVAILABLE. TABLE INDICATES YEAR, 1404 SAMPLING GEAR, SAMPLING STATISTICAL AREA, SAMPLING PERIOD-SAMPLE SIZE, 1404 PURPOSE OF PROGRAM, AND TYPE OF DATA COLLECTED.= 1404

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FOREMAN RE LINDSTROM SC=FISH. RES. BOARD CAN. TECH. REP. (IN MS FORM)1406GSM+ 74=PRELIMINARY REPORT ON THE DISTRIBUTION AND ABUNDANCE OF THE1406GREEN URCHIN STRONGYLOCENTROTUS DRUEBACHIENSIS IN THE STRAIT OF GEORGIA.1406+ GULF-ISLANDS GEORGIA-STRAIT ALGAE=PRESENTS THE 1973 RESULTS OF AN1406URCHIN SURVEY IN GEORGIA STRAIT. REPORT STUDIES THE EXTENT OF THE1406INCREASED URCHIN POPULATIONS AND EXAMINES THE SITUATION TO DETERMINE1406IF IT WAS NATURAL CR MAN-INDUCED.=1406

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