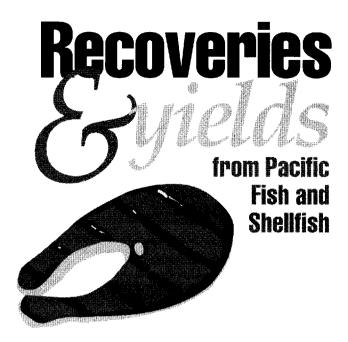


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Chuck Crapo • Brian Paust • Jerry Babbitt



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### Introduction

Yield and recovery data are important decision-making tools for many people in the seafood industry. The fisherman uses yield data to determine whether roe herring are ready to be fished. The line foreman tracks the efficiency of his filleting operation by documenting daily recovery. And the plant manager uses yield figures to estimate the profitability of a new fishery or processing line. Finding this information can be difficult since much of it is generated in scientific papers or under actual processing conditions, but without it making good decisions becomes more uncertain.

This publication is a compilation of recovery and yield data from scientific sources and industry experience.

#### Note!!

Recoveries are reported as averages and expected ranges. The average yield represents high quality, properly handled fresh fish and shellfish in good physiological condition. If fish condition is abnormal, in a post-spawning or starving state, then the numbers will not be good estimates. The ranges, when available, represent the typical variations found within fish populations during the year.

Many other factors such as handling and processing conditions will also affect yields. Filleting skills, cooking times, and refrigeration systems can all have an effect on recoveries. The data presented here are based on typical processing and handling methods.

Smoked fish yields were calculated using an average 15% weight loss during salting/brining and 10% in the smoking process.

| From                              | То                                   | Average (%)                    | Range (%      |
|-----------------------------------|--------------------------------------|--------------------------------|---------------|
| Abalone,                          | <b>Pinto</b> Haliotus kar            | ntschatkana                    | •             |
| Whole                             | Edible Muscle                        | 42                             | 40-45         |
|                                   | Meat                                 | 25                             |               |
|                                   | Trimming                             | 16                             |               |
|                                   | Dried Muscle                         | 10                             |               |
| Blackcod                          | (see Sablefish)                      |                                | <u></u>       |
| Capelin <i>M</i>                  | Iallotus villosus                    |                                |               |
| Round                             | D/H-On                               | 89                             | 84-93         |
|                                   | D/H-Off                              | 78                             | 73-81         |
| Clams                             |                                      |                                |               |
| Softshell My                      | <i>∕a</i> sp.                        |                                |               |
| Whole                             | Edible Meats                         | 57                             | 53-62         |
| Macoma <i>Ma</i>                  | coma sp.                             |                                |               |
| Whole                             | Edible Meats                         | 53                             | 45-59         |
| Cockles Clin                      | ocardium sp.                         |                                |               |
| Whole                             | Edible Meats                         | 42                             | 38-48         |
| l ittlenecke                      | Protothaca sp.                       |                                |               |
| Whole                             | Edible Meats                         | 37                             | 31-46         |
| Candinalia D                      |                                      |                                |               |
| <b>Geoducks</b> <i>P</i><br>Whole | anope sp. Edible Meats               | 33                             | 20.25         |
| WITOLE                            | Steaks                               | 22                             | 32-35         |
| -                                 | Necks                                | 12                             | 20-25<br>9-14 |
|                                   |                                      | 14                             | 5-14          |
| Razors Siliqu                     |                                      |                                |               |
| Whole                             | Edible Meats                         | 44                             | 42-50         |
| Raw Meat                          | Cooked Meat                          | 60                             |               |
| Butter Saxio                      | lomus sp.                            |                                | ·             |
| Whole                             | Edible Meats                         | 45                             | 38-46         |
| <b>D/H-On</b> =Dressed/Hea        | ad-On <b>D/H-Off</b> =Dressed/Head-O | ff S/B=Skinless/Boneless sp.=s | species       |

| From             | То                       | Average (%) | Range (%)     |
|------------------|--------------------------|-------------|---------------|
| Cod, Pacific     | : Gadus macrocepha       | ılus        |               |
| Round            | D/H-On                   | 81          | 72-90         |
|                  | D/H-Off                  | 63          | 56-75         |
|                  | Skin-On Fillets (V-cut)  | 45          | 38-48         |
|                  | Skinless Fillets (V-cut) | 39          | 22-45         |
|                  | S/B Fillets (V-cut)      | 33          | 18-39         |
|                  | Skin-On Fillets          | 38          |               |
|                  | Skinless Fillets (J-cut) | 32          |               |
|                  | S/B Fillets (J-cut)      | 26          | <u> </u>      |
|                  | Steaks                   | 62          | · <del></del> |
|                  | Salted D/H-Off           | 45          |               |
|                  | Smoked D/H-Off           | 58          | 50-65         |
|                  | Belly Flaps              | 10          |               |
|                  | Liver                    | 5           | 3-7           |
|                  | Roe                      | 4           | 1-7           |
| D/H-On           | D/H-Off                  | 78          |               |
|                  | Skin-On Fillets          | 55          | 42-60         |
|                  | Skinless Fillets         | 48          | 34-56         |
|                  | S/B Fillets              | 41          | 20-48         |
| D/H-Off          | Skin-On Fillets          | 71          | 54-80         |
| -                | Skinless Fillets         | 62          | 31-81         |
|                  | S/B Fillets              | 52          | 25-70         |
| Skin-On Fillets  | Skinless Fillets         | 87          |               |
|                  | Trim                     | 12          |               |
|                  | S/B Fillets              | 73          |               |
| Skinless Fillets | S/B Fillets              | 84          |               |
|                  | Trim                     | 13          |               |
| Trim             | Mince                    | 90          | 80-95         |

| То                          | Average (%)  | Range (%)   |
|-----------------------------|--|---|
|                             |  |   |
| ancer magister              |  |   |
| Raw Sections                | 60   |   |
| Cooked Whole                | 90   |   |
| Cooked Sections             | 52   |   |
| Cooked Meat                 | 24   | 22-25   |
| (                           | during molt)   | 13-14   |
| Cooked Sections             | 87   |   |
| Cooked Meat                 | 27   |   |
| Cooked Meat                 | 46   |   |
| Raw Sections                | 69   | 67-74   |
| Raw Sections                | 69   | 67-74   |
| Cooked Whole                | 92   | 90-95   |
| Cooked Sections             | <u>60</u>  | 52-67   |
| Cooked Meat                 | 25   | 23-28   |
| (                           | during molt)   | 16-19   |
| Cooked Sections             | 87   |   |
| Cooked Meat                 | 27   |   |
| Cooked Meat                 | 42   |   |
| ralithodes platypus         | <b>3</b>   |   |
| Raw Sections                | 65   |   |
| Cooked Whole                | 90   |   |
| Cooked Sections             | 55   | 50-61   |
| Cooked Meat                 | 20   | 16-23   |
|                             | during molt)   | 13-14   |
|                             |  |   |
| Cooked Sections             | 84   | <del>-</del>  |
| Cooked Sections Cooked Meat | 84<br>22   | -   |
|                             | Raw Sections Cooked Whole Cooked Sections Cooked Meat Cooked Meat Cooked Meat Cooked Meat Cooked Meat  Raw Sections Cooked Whole Cooked Sections Cooked Whole Cooked Sections Cooked Meat  Cooked Meat  Cooked Meat  Cooked Sections Cooked Meat Cooked Whole Cooked Sections Cooked Whole Cooked Sections Cooked Meat | Raw Sections 60 Cooked Whole 90 Cooked Sections 52 Cooked Meat 24 (during molt) Cooked Sections 87 Cooked Meat 27 Cooked Meat 46  wn or Golden) Paralithodes camtschatica, Lithodes aequispina Raw Sections 69 Cooked Whole 92 Cooked Sections 60 Cooked Meat 25 (during molt) Cooked Sections 60 Cooked Meat 25 (during molt) Cooked Sections 87 Cooked Meat 27 Cooked Meat 25 (auring molt) Cooked Sections 87 Cooked Meat 42  ralithodes platypus Raw Sections 65 Cooked Whole 90 Cooked Sections 55 |

| From            | То                     | Average (%) | Range (% |
|-----------------|------------------------|-------------|----------|
| Crab (conti     | nued)                  |             |          |
| Tanner Chiono   | pecetes bairdi, C. opi | ilio        |          |
| Raw Whole       | Raw Sections           | 68          | 65-72    |
|                 | Cooked Whole           | 92          | 90-95    |
| <del></del> -   | Cooked Sections        | 60          | 58-66    |
|                 | Cooked Meat            | 17          | 15-21    |
|                 | (d                     | uring molt) | 10-14    |
| Raw Sections    | Cooked Sections        | 88          |          |
| Cooked Whole    | Cooked Meat            | 19          |          |
| Cooked Sections | Cooked Meat            | 28          |          |
| Dogfish Sq      | ualus acanthias        |             |          |
| Round           | D/H-On                 | 75          | . 69-80  |
|                 | D/H-Off                | 55          | 41-68    |
|                 | Edible Portion         | 36          | 32-40    |
|                 | Backs                  | 30          |          |
|                 | Belly Flaps            | 5           |          |
|                 | Tails and Fins         | 4           | 4-6      |
|                 | Liver                  | 13          | 10-21    |
|                 | Viscera                | 51          |          |
| D/H-On          | D/H-Off                | 69          |          |
| <del></del>     | Backs                  | 38          |          |
|                 | Belly Flaps            | 7           |          |
| Eels Angui      | lliformes              |             |          |
| Round           | D/H-On                 | 90          |          |
|                 | D/H-Off                | 72          | 70-75    |
|                 | Skin-On Flesh          | 62          | 56-65    |
|                 | Smoked D/H-Off         | 65          |          |
| Fish Meal       |                        |             |          |
| <u> </u>        | Mool                   | 18          | 16-20    |
| Lean Fish       | Meal                   | 10          |          |

| - | - |   |
|---|---|---|
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|   | 0 |   |
| ` |   | _ |

| From            | То                 | Average (%) | Range (%) |
|-----------------|--------------------|-------------|-----------|
| Flounders       |                    |             |           |
| Arrowtooth A    | theresthes stomias |             |           |
| Round           | D/H-On             | 90          | 84-94     |
|                 | D/H-Off            | 74          | 70-80     |
|                 | Skinless Fillet    | 34          | 25-39     |
|                 | Surimi             | 11          |           |
|                 | Kurimi             | 48          |           |
|                 | S/B fillets        | 25          | 18-30     |
| Starry Platich  | thys stellatus     |             |           |
| Round           | D/H-On             | 84          | 79-86     |
|                 | D/H-Off            | 67          | 63-69     |
|                 | Skinless Fillet    | 33          | 25-40     |
|                 | ic Merluccius pro  |             |           |
| Round           | D/H-On             | 80          | 70-85     |
|                 | D/H-Off            | 60          | 56-71     |
|                 | Skin-On Fillets    | 43          |           |
|                 | Skinless Fillets   | 32          |           |
| · · · · · ·     | S/B Fillets        | 27          |           |
| 5.0.0           | Roe                |             | 2-8       |
| D/H-On          | D/H-Off            | <u>71</u>   |           |
|                 | Skin-On Fillets    | 51          |           |
|                 | Skinless Fillets   | 38          |           |
|                 | S/B Fillets        | 32          |           |
| Skin-On Fillets | Skinless Fillets   | 75          |           |
|                 | Trim               | 12          |           |
|                 | S/B Fillets        | 63          |           |
| Trim            | Mince              | 90          |           |

| From            | То                       | Average (%) | Range (%    |
|-----------------|--------------------------|-------------|-------------|
| Halibut, Pa     | cific Hippoglossus       | stenolepis  |             |
| Round           | D/H-On                   | 88          | 85-92       |
|                 | D/H-Off                  | 72          | 68-80       |
|                 | Steaks                   | 62          | 60-75       |
|                 | Skin-On Fillet           | 49          | 45-56       |
|                 | Skinless Fillet (Fletch) | 41          | 34-44       |
| D/H-On          | D/H-Off                  | 83          | 73-94       |
|                 | Steaks                   | 76          | 71-88       |
|                 | Skin-On Fillet           | 56          | 47-64       |
|                 | Skinless Fillet (Fletch) | 46          | 38-50       |
| D/H-Off         | Skin-On Fillet           | 68          | 64-73       |
|                 | Skinless Fillet (Fletch) | 56          | 45-60       |
|                 | Steaks                   | 79          | 70-94       |
|                 | Roasts                   | 84          | <del></del> |
| Round           | D/H-On                   | 82          | 78-87       |
|                 | D/H-Off                  | 70          | 60-76       |
|                 | Skin-On Fillets          | 53          | 45-60       |
|                 | Skinless Fillets         | 49          | 41-58       |
|                 | Salted Round             | 82          | 79-88       |
| ·               | Salted Gibbed            | 65          |             |
|                 | Salted Fillets           | 42          | 35-47       |
|                 | Smoked D/H-Off           | 60          |             |
|                 | Roe                      | 10          | 3-18        |
|                 | Pickled D/H-On           | 74          |             |
| Skin-On Fillets | Salted Fillets           | 85          |             |
|                 | Pickled                  |             |             |
|                 | FICKIEU                  | 90          |             |
|                 |                          |             |             |
| Lamprey, Pa     | acific Lampetra tria     |             |             |
| Lamprey, Pa     |                          |             | 74-85       |

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| From           | То                         | Average (%)    | Range (%      |
|----------------|----------------------------|----------------|---------------|
| Lingcod        | Ophiodon elongatus         |                |               |
| Round          | D/H-On                     | 90             | 83-93         |
|                | D/H-Off                    | 70             | 62-74         |
|                | Skinless Fillet            | 35             | 29-38         |
|                | Steaks                     | 62             |               |
|                | D/H-Off                    | 80             | 67-89         |
|                | Skinless Fillet            | 39             | 31- <u>45</u> |
|                | Steaks                     | 69             |               |
| D/H-Off        | Skinless Fillets           | 49             |               |
| •              | Steaks                     | 86             |               |
|                | D/H-Off                    | 68             | 62-74         |
| Mackere.       | <b>l, Atka</b> Pleurogramm | us monopterygu | us            |
| Round          | D/H-On                     | 87             | 83-93         |
|                | Skinless Fillet            | 31             | 29-33         |
|                | Steaks                     | 57             |               |
| •              | Salted D/H-Off             | 41             | <del></del>   |
| Mussels        | Mytilus sp.                |                | _             |
| Whole          | Edible Meat (wild)         | 26             | 19-32         |
|                | Edible Meat (cultured)     | 20             | 11-27         |
|                | Steamed                    | 14             | 10-18         |
| Octopus        | Octopus dofleini           |                |               |
| Whole          | Gutted/Skin-On             | 80             | 80-85         |
|                | Gutted/Skinned             | 65             |               |
| <del>-</del> - | Viscera                    | 20             |               |
| Ovsters        | Crassostrea sp.            |                |               |
| Raw Whole      | Raw Meats                  |                | 5-14          |
| HAY WINDE      | TRATE INDUITO              |                |               |

Raw Meats

Cooked Meats

61

| From            | То                         | Average (%)      | Range (%)      |
|-----------------|----------------------------|------------------|----------------|
| Pacific Oce     | an Perch Sebastes a        | lutus            |                |
| Round           | D/H-On                     | 88               | 82-94          |
|                 | D/H-Off                    | 62               | 46-72          |
|                 | Skinless Fillet            | 30               | 27-32          |
| D/H-On          | D/H-Off                    | 71               |                |
|                 | Skinless Fillet            | 35               |                |
| Plaice, Alas    | <b>ka</b> Pleuronectes qua | adrituberculatus | }              |
| Round           | D/H-On                     | 84               | 79-86          |
|                 | D/H-Off                    | 68               | 60-72          |
|                 | Skinless Fillet            | 35               | 30-40          |
| Pollock, Wa     | alleye Theragra chai       | cogramma<br>79   | 72-86          |
| nouria          | D/H-Off                    | 62               | 72-86<br>52-72 |
|                 | Skin-On Fillets            | 40               | 35-55          |
|                 | Skinless Fillets           | 34               | 29-43          |
|                 | S/B Fillets                | 28               | 24-36          |
|                 | Mince                      | 50               | 30-60          |
|                 | Surimi (shore plant)       | 20               | 15-22          |
|                 | Surimi (factory trawler)   | 15               | 11-17          |
|                 | Roe                        | 6.5              | 3-20           |
| Skin-On Fillets | Skinless Fillets           | 85               |                |
|                 | Trim                       | 15               |                |
|                 | S/B Fillets                | 70               |                |
| Trim            | Mince                      | 90               | •              |
| Rat-Tails C     | oryphaenoides sp.          |                  |                |
|                 | <u> </u>                   |                  |                |

Red Snappers (see Rockfish)

| From           | То  | Average (%) | Range (%)            |
|----------------|---|-------------|----------------------|
| Rockfish       |   |             |                      |
|                | es melanops<br>Sebastes elongatus<br>Sebastes altivelis |             |                      |
| Round          | D/H-On  | 88          | 85-91                |
|                | D/H-Off   | 57          | 48-62                |
| -              | D/H-Off (Eastern)                                       | 50          |                      |
|                | Skin-On Fillet  | 32          | 30-36                |
|                | Skinless Fillet   | 27          | 25-33                |
| Skin-On Fillet | Skinless Fillet   | 85          |                      |
| D/H-On         | D/H-Off   | 65          |                      |
|                | Skin-On Fillet  | 56          |                      |
|                | Skinless Fillet   | 48          |                      |
| Canary Sebas   |   |             | Sebastes aleutianus  |
| China Sebast   |   | •           | Sebastes borealis    |
| Dusky Sebas    |   |             | Sebastes brevispinis |
| Quillback Sel  | _   |             | astes nigrocinctus   |
|                | Sebastes babcocki                                       |             | bastes entomelas     |
| •              | ebastes prorigor  | •           | Sebastes ruberrrimus |
|                | ebastes helvomaculatus                                  |             | Sebastes flavidus    |
| Round          | D/H-On  | 88          | 85-91                |
|                | D/H-Off   | 57          | 48-62                |
|                | D/H-Off (Eastern)                                       | 50          |                      |
|                | Skin-On Fillet  | 28          | 25-35                |
|                | Skinless Fillet   | 23          | 21-30                |
| Skin-On Fillet | Skinless Fillet   | 82          |                      |
| D/H-On         | D/H-Off   | 65          |                      |
|                | Skin-On Fillet  | 49          |                      |
|                | Skinless Fillet   | 40          |                      |

| From              | То                | Average (%) | Range (%)   |
|-------------------|-------------------|-------------|-------------|
| Sablefish A       | noplopoma fimbri  | a           |             |
| Round             | D/H-On            | 89          | 86-94       |
|                   | D/H-Off           | 68          | 67-71       |
|                   | D/H-Off (Eastern) | 62          | 60-67       |
|                   | Skin-On Fillet    | 40          |             |
|                   | Skinless Fillet   | 35          | <del></del> |
|                   | Steaks            | 62          | 60-65       |
|                   | Salted D/H-Off    | 45          |             |
|                   | Smoked Sides      | 31          | 27-35       |
| D/H-Off           | Skin-On Fillet    | 59          |             |
|                   | Skinless Fillet   | 28          |             |
|                   | Smoked Sides      | 45          | 40-49       |
| D/H-Off (Eastern) | Skin-On Fillets   | 64          |             |
|                   | Skinless Fillet   | 56          |             |
|                   | Smoked Sides      | 50          | 45-52       |
| Skin-On Fillets   | Smoked Fillets    | 80          |             |

| 6 | 2 |
|---|---|
| • | _ |

| From                                  | То                 | Average (%) | Range (%) |
|---------------------------------------|--------------------|-------------|-----------|
| Salmon                                |                    |             |           |
| Pink Oncor                            | rhynchus gorbuscha |             | _         |
| Round                                 | D/H-On             | 91          | 84-94     |
| · · · · · · · · · · · · · · · · · · · | D/H-Off            | 73          | 68-80     |
|                                       | Canned             | 65          | 58-67     |
|                                       | Skin-On Fillet     | 52          | 47-58     |
|                                       | Skinless Fillet    | 42          | 41-46     |
|                                       | S/B Fillet         | 33          | 30-36     |
|                                       | S/B Trim           | 14          | 12-16     |
|                                       | Steaks             | 58          | 53-65     |
|                                       | Dry-Salt Sides     | 36          |           |
|                                       | Mild Cure Sides    | 30          |           |
|                                       | Smoked Sides       | 30          |           |
|                                       | Roe                | 6           | 3-10      |
| D/H-On                                | D/H-Off            | 81          | 72-90     |
|                                       | Skin-On Fillet     | 57          | 50-69     |
|                                       | Skinless Fillet    | 46          | 43-55     |
| ·                                     | S/B Fillet         | 36          | 32-43     |
|                                       | S/B Trim           | 16          | 13-19     |
|                                       | Steaks             | 63          | 56-77     |
|                                       | Dry-Salt Sides     | 40          |           |
|                                       | Mild Cure Sides    | 33          |           |
|                                       | Smoked Sides       | 33          |           |
| D/H-Off                               | Skin-On Fillet     | 72          |           |
|                                       | Skinless Fillet    | 58          |           |
|                                       | S/B Fillet         | 45          |           |
|                                       | S/B Trim           | 19          |           |
|                                       | Steaks             | 80          |           |
|                                       | Dry-Salt Sides     | 49          |           |
|                                       | Mild Cure Sides    | 41          |           |
|                                       | Smoked Sides       | 41          | 35-50     |

| From    | То               | Average (%) | Range (%) |
|---------|------------------|-------------|-----------|
| Salmon  | (continued)      |             |           |
| Chum O  | ncorhynchus keta | ,           |           |
| Round   | D/H-On           | 89          | 79-91     |
|         | D/H-Off          | 74          | 71-77     |
|         | Canned           | 67          | 60-70     |
|         | Skin-On Fillet   | 60          | 55-63     |
|         | Skinless Fillet  | 50          | 41-46     |
| -       | S/B Fillet       | 38          | 30-36     |
| ****    | S/B Trim         | 15          | 12-16     |
|         | Steaks           | 58          | 55-65     |
|         | Dry-Salt Sides   | 43          |           |
|         | Mild Cure Sides  | 35          |           |
|         | Smoked Sides     | 35          |           |
|         | Roe              | 8           | 4-10      |
| D/H-On  | D/H-Off          | 83          | 79-91     |
|         | Skin-On Fillet   | 67          | 61-74     |
|         | Skinless Fillet  | 56          | 49-62     |
|         | S/B Fillet       | 43          | 38-47     |
|         | S/B Trim         | 17          | 13-19     |
|         | Steaks           | 65          | 61-75     |
|         | Dry-Salt Sides   | 48          |           |
|         | Mild Cure Sides  | 39          |           |
|         | Smoked Sides     | 39          |           |
| D/H-Off | Skin-On Fillet   | 81          |           |
|         | Skinless Fillet  | 67          | •         |
|         | S/B Fillet       | 51          |           |
|         | S/B Trim         | 20          |           |
|         | Steaks           | 78          |           |
|         | Dry-Salt Sides   | 58          |           |
|         | Salted D/H-Off   | 47          |           |
|         | Smoked Sides     | 55          | 45-60     |

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| From      | То                 | Average (%) | Range (%) |
|-----------|--------------------|-------------|-----------|
| Salmon (  | (continued)        |             |           |
| Sockeye ( | Oncorhynchus nerka |             |           |
| Round     | D/H-On             | 92          | 85-94     |
|           | D/H-Off            | 74          | 66-82     |
|           | Canned             | 67          | 60-70     |
|           | Skin-On Fillet     | 53          | 50-59     |
|           | Skinless Fillet    | 46          | 41-49     |
|           | S/B Fillet         | 35          | 30-38     |
|           | S/B Trim           | 15          | 12-16     |
|           | Steaks             | 57          | 55-65     |
|           | Dry-Salt Sides     | 40          |           |
|           | Mild Cure Sides    | 33          |           |
|           | Smoked Sides       | 33          |           |
|           | Roe                | 4           | 3-6       |
| D/H-On    | D/H-Off            | 80          | 70-94     |
|           | Skin-On Fillet     | 57          | 53-68     |
|           | Skinless Fillet    | 50          | 43-56     |
|           | S/B Fillet         | 38          | 32-41     |
|           | \$/B Trim          | 16          | 13-28     |
|           | Steaks             | 62          | 59-75     |
|           | Dry-Salt Sides     | 44          |           |
|           | Mild Cure Sides    | 36          |           |
|           | Smoked Sides       | 36          |           |
| D/H-Off   | Skin-On Fillet     | 72          | 1 1120    |
|           | Skinless Fillet    | 62          |           |
|           | S/B Fillet         | 47          |           |
|           | S/B Trim           | 20          |           |
|           | Steaks             | 77          |           |
|           | Dry-Salt Sides     | 54          |           |
|           | Mild Cure Sides    | 45          |           |
|           | Smoked Sides       | 45          | 35-60     |

| From      | То                | Average (%) | Range (%) |
|-----------|-------------------|-------------|-----------|
| Salmon (  | continued)        |             |           |
| Coho Once | orhynchus kisutch |             |           |
| Round     | D/H-On            | 92          | 87-94     |
|           | D/H-Off           | 75          | 70-83     |
|           | Canned            | 67          | 60-70     |
|           | Skin-On Fillet    | 57          | 52-60     |
|           | Skinless Fillet   | 51          | 46-56     |
|           | S/B Fillet        | 38          | 30-40     |
|           | S/B Trim          | 14          | 12-17     |
| <u> </u>  | Steaks            | 62          | 58-65     |
|           | Dry-Salt Sides    | 43          |           |
|           | Mild Cure Sides   | 36          |           |
|           | Smoked Sides      | 36          |           |
|           | Roe               | 7           | 5-10      |
| D/H-On    | D/H-Off           | 82          | 76-92     |
|           | Skin-On Fillet    | 62          | 58-67     |
|           | Skinless Fillet   | 55          | 49-63     |
|           | S/B Fillet        | 41          | 32-45     |
|           | S/B Trim          | 15          | 13-18     |
|           | Steaks            | 66          | 63-73     |
|           | Dry-Salt Sides    | 47          | ·····     |
|           | Mild Cure Sides   | 39          |           |
|           | Smoked Sides      | 39          |           |
| D/H-Off   | Skin-On Fillet    | 76          |           |
|           | Skinless Fillet   | 68          |           |
|           | S/B Fillet        | 51          |           |
|           | S/B Trim          | 19          |           |
|           | Steaks            | 81          |           |
|           | Dry-Salt Sides    | 57          |           |
|           | Mild Cure Sides   | 48          | ···       |
|           | Smoked Sides      | 48          | 40-60     |
|           |                   |             |           |

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Range (%) From To Average (%) Salmon (continued) Other Salmon, including Chinook and Cherry D/H-On 82-94 88 Round 68-74 D/H-Off 72 Skin-On Fillet 55 52-60 41-49 46 Skinless Fillet S/B Fillet 36 30-40 12-16 14 S/B Trim 58 54-65 Steaks **Dry-Salt Sides** 40 Mild Cure Sides 34 **Smoked Sides** 34 3-10 Roe 6 D/H-Off 82 73-90 D/H-On Skin-On Fillet 55-73 63 Skinless Fillet 44-59 52 32-49 S/B Fillet 41 13-20 16 S/B Trim Steaks 66 57-79 **Dry-Salt Sides** 46 Mild Cure Sides 39 **Smoked Sides** 39 D/H-Off Skin-On Fillet 76 Skinless Fillet 64 S/B Fillet 50 S/B Trim 19 Steaks 81 **Dry-Salt Sides** 56 Mild Cure Sides 47 **Smoked Sides** 47 35-60 Baked Steak Raw Steak 89

**Broiled Steak** 

83

| From      | То              | Average (%) | Range (%) |
|-----------|-----------------|-------------|-----------|
| Salmon, l | Farmed          |             |           |
| Norwegian |                 |             |           |
| D/H-On    | D/H-Off         | 88          |           |
|           | Skin-On fillet  | 76          |           |
|           | Skinless Fillet | 68          |           |
|           | Roasts          | 85          |           |
| Chilean   |                 |             |           |
| D/H-On    | D/H-Off         | 86          |           |
|           | Skin-On Fillet  | 72          |           |
|           | Skinless Fillet | 66          |           |
|           | Roasts          | 83          |           |

## Salmon, Frozen and Thawed

Note: Freezing conditions and length of storage will affect recoveries. Poor conditions and storage more than six months will reduce yields significantly.

Chum (Thawed)

| D/H-On  | Skin-On Fillet  | 62 |                                       |
|---------|-----------------|----|---------------------------------------|
|         | Skinless Fillet | 52 |                                       |
| D/H Off | Skin-On Fillet  | 75 |                                       |
|         | Skinless Fillet | 63 | · · · · · · · · · · · · · · · · · · · |

Pink (Thawed)

| D/H-On  | Skin-On Fillet  | 54 |  |
|---------|-----------------|----|--|
|         | Skinless Fillet | 45 |  |
| D/H-Off | Skin-On Fillet  | 67 |  |
|         | Skinless Fillet | 56 |  |

Sockeye (Thawed)

| D/H-On  | Skin-On Fillet  | 52 |  |
|---------|-----------------|----|--|
|         | Skinless Fillet | 47 |  |
| D/H-Off | Skin-On Fillet  | 65 |  |
|         | Skinless Fillet | 59 |  |

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| Salmon, Fi   | ozen and Thawe   | d (continued)   |   |
| Silver (Thawe                                      | ed)  |   |   |
| D/H-On   | Skin-On Fillet   | 58  |   |
|  | Skinless Fillet  | 49  |   |
| D/H-Off  | Skin-On Fillet   | 71  |   |
|  | Skinless Fillet  | 60  |   |
| Saury, Paci  | i <b>fic</b> Cololabis saira   |   |   |
| Round  | D/H-On   | 88  | 83-92   |
|  | D/H-Off  | 76  | 71-86   |
|  | Skinless Fillet  | 57  | 54-61   |
|  | Omnoso i moi   |   |   |
| Scallops C   | Chlamys sp., Hinnit  | tes sp., Pecten sp.                                   |   |
| Scallops C   |  | tes sp., Pecten sp.                                   | 8-12  |
|  | Chlamys sp., Hinnit  | <del>-</del>  |   |
|  | Chlamys sp., Hinnit  | 10  | 8-12  |
| Raw Whole  | Chlamys sp., Hinnii<br>Adductor Muscle<br>Viscera  | 10<br>22<br>50  | 8-1 <u>2</u><br>20-26                             |
| Raw Whole  | Chlamys sp., Hinnii<br>Adductor Muscle<br>Viscera<br>Cooked Meats                        | 10<br>22<br>50  | 8-1 <u>2</u><br>20-26                             |
| Raw Whole Raw Meats Sculpin E1                     | Chlamys sp., Hinnii Adductor Muscle Viscera Cooked Meats nophrys sp., Hemile             | 10<br>22<br>50<br>epidotus sp., Myo                   | 8-12<br>20-26<br>exocephalus sp                   |
| Raw Whole Raw Meats Sculpin E1                     | Chlamys sp., Hinnii Adductor Muscle Viscera Cooked Meats  nophrys sp., Hemile D/H-On     | 10<br>22<br>50<br>epidotus sp., Myo<br>80             | 8-12<br>20-26<br>exocephalus sp<br>75-87          |
| Raw Whole  Raw Meats  Sculpin E1  Round            | Chlamys sp., Hinnii Adductor Muscle Viscera Cooked Meats  nophrys sp., Hemile D/H-Off    | 10<br>22<br>50<br>epidotus sp., Myo<br>80<br>39<br>24 | 8-12<br>20-26<br>exocephalus sp<br>75-87<br>25-51 |
| Raw Whole  Raw Meats  Sculpin E1  Round            | Adductor Muscle Viscera Cooked Meats  Mophrys sp., Hemile D/H-On D/H-Off Skinless Fillet | 10<br>22<br>50<br>epidotus sp., Myo<br>80<br>39<br>24 | 8-12<br>20-26<br>exocephalus sp<br>75-87<br>25-51 |
| Raw Whole  Raw Meats  Sculpin Et  Round  Sea Cucun | Adductor Muscle Viscera Cooked Meats  Mophrys sp., Hemile D/H-On D/H-Off Skinless Fillet | 10<br>22<br>50<br>2pidotus sp., Myo<br>80<br>39<br>24 | 8-12<br>20-26<br>exocephalus sp<br>75-87<br>25-51 |

**Dried Meat** 

5

| From                | То                  | Average (%)   | Range (% |
|---------------------|---------------------|---------------|----------|
| Sea Urch            | in Strongylocentro  | tus sp.       |          |
| Green               |                     |               |          |
| Round               | Roe                 |               | 5-30     |
| Red                 |                     |               |          |
| Round               | Roe                 | -             | 8-30     |
| Shad, Ar            | nerican Alosa sapio | dissima<br>88 | 85-92    |
| <u></u>             | D/H-Off             | 74            | 69-77    |
|                     | Skin-On Fillet      | 65            | 62-67    |
|                     | Skinless Fillet     | 54            |          |
|                     | Roe                 |               | 3-17     |
| Shark<br>Sharks, Ge | eneral              |               |          |
| Round               | D/H-On              | 80            | 62-90    |
|                     | D/H-Off             | 58            | 22-75    |
|                     | Trunk               | 51            | 33-67    |
|                     | Skin-On Fillet      | 42            | 21-60    |
|                     | Skinless Fillet     | 32            | 17-56    |
|                     | Fins                | 5             | 1-12     |
| D/H-On              | D/H-Off             | 73            |          |
|                     | Trunk               | 64            |          |
|                     | Skin-On Fillet      | 53            |          |
|                     | Skinless Fillet     | 40            |          |
|                     | Fins                | 6             |          |
| D/H-Off             | Trunk               | 88            |          |
|                     | Skin-On Fillet      | 73            |          |
| <del></del>         | Skinless Fillet     | 55            |          |
|                     | Fins                | 9             |          |

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| From        | То                   | Average (%)  | Range (%)                                |
|-------------|----------------------|--------------|--|
| Shark (c    | ontinued)            |              |  |
| Salmon La   | amna ditropis        |              |  |
| Round       | D/H-On               | 80           |  |
|             | D/H-Off              | 63           | 50-66                                    |
|             | Trunk                | 58           | 44-59                                    |
|             | Skin-On Fillet       | 53           | 39-57                                    |
|             | Skinless Fillet      | 44           | 32-48                                    |
|             | Fins                 | 5            |  |
| Sevengill ( | Cow Shark) Notorync  | hus maculata |  |
| Round       | D/H-On               | 86           |  |
|             | D/H-Off              | 55           |  |
|             | Trunk                | 52           |  |
|             | Skin-On Fillet       | 45           |  |
|             | Skinless Fillet      | 35           |  |
| **          | Fins                 | 5            |  |
| Soupfin G   | aleorhinus zyopterus |              |  |
| Round       | D/H-On               | 65           |  |
|             | D/H-Off              | 51           | · <del></del>                            |
|             | Trunk                | 45           |  |
|             | Fins                 | 4            |  |
| Blue Prior  | nace glauca          |              |  |
| Round       | D/H-On               | 88           |  |
|             | D/H-Off              | 67           | 111-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 |
|             | Trunk                | 54           |  |
|             | Skin-On Fillet       | 51           |  |
|             |                      | 40           |  |
|             | Skinless Fillet      | 40           |  |

|  | То  | Average (%)                                  | Range (%                              |
|--|---|--|---------------------------------------|
| Shark (cont  | inued)  |  |                                       |
| Thresher Alop  | pias vulpinus   |  |                                       |
| Round  | D/H-On  | 85   |                                       |
| -  | D/H-Off   | 71   | · · · · · · · · · · · · · · · · · · · |
|  | Trunk   | 57   |                                       |
|  | Skin-On Fillet  | 49   |                                       |
| ,  | Skinless Fillet   | 44   |                                       |
|  | Fins  | 14   |                                       |
| Blacktip Carc  | harhinus limbatus   |  |                                       |
| Round  | D/H-On  | 82   |                                       |
|  | D/H-Off   | 62   |                                       |
|  | Trunk   | 52   |                                       |
|  | Skin-On Fillet  | 46   |                                       |
|  | Skinless Fillet   | 36   |                                       |
|  | Fins  | 10   |                                       |
| Chairman Day   | adalasa om  |  |                                       |
| ·····  | ndalus sp.  |  | ··                                    |
| Pink   | ndalus sp.  Raw Headless  | 53   |                                       |
| Pink   |   | 53<br>90                                     |                                       |
| Pink   | Raw Headless  |  |                                       |
| Pink   | Raw Headless<br>Cooked Whole  | 90   |                                       |
| Pink<br>Raw Whole  | Raw Headless<br>Cooked Whole<br>Raw Peeled  | 90<br>36                                     |                                       |
| Pink Raw Whole Raw Headless                                  | Raw Headless Cooked Whole Raw Peeled Cooked Peeled  | 90<br>36<br>25                               |                                       |
| Pink Raw Whole Raw Headless Cooked Whole                     | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled  | 90<br>36<br>25<br>69                         |                                       |
| Pink Raw Whole Raw Headless Cooked Whole  Spot               | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled  | 90<br>36<br>25<br>69                         | 45-49                                 |
| Pink Raw Whole Raw Headless Cooked Whole  Spot               | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled Cooked Peeled Raw Headless Cooked Whole            | 90<br>36<br>25<br>69<br>28<br>47<br>90       |                                       |
| Pink Raw Whole Raw Headless Cooked Whole  Spot               | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled Cooked Peeled Raw Headless                         | 90<br>36<br>25<br>69<br>28                   | 45-49                                 |
| Pink Raw Whole Raw Headless Cooked Whole  Spot               | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled Cooked Peeled Raw Headless Cooked Whole            | 90<br>36<br>25<br>69<br>28<br>47<br>90       |                                       |
| Pink Raw Whole Raw Headless Cooked Whole Raw Whole Raw Whole | Raw Headless Cooked Whole Raw Peeled Cooked Peeled Cooked Peeled Cooked Peeled Raw Headless Cooked Whole Raw Peeled | 90<br>36<br>25<br>69<br>28<br>47<br>90<br>34 |                                       |

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| From   | То   | Average (%)                      | Range (%   |
| Skates R   | aja sp.  |                                  |  |
| Round  | D/H-On   | 90                               | 75-95  |
|  | D/H-Off  | 39                               |  |
|  | Wings  | 23                               | 20-23  |
| Smelt H  | ypomesus sp., Spirin   | chus sp.                         |  |
| Round  | D/H-On   | 85                               | 82-90  |
|  | D/H-Off  | 71                               | 67-78  |
|  | Skinless Fillet  | 38                               |  |
|  | Salted D/H-Off   | 45                               |  |
|  | Smoked D/H-Off   | 57                               |  |
|  | Cooked Fillet  | 35                               |  |
|  | eptunea sp. Edible Meats   | 28                               | 27-31  |
| Snails N<br>Whole                                    | eptunea sp. Edible Meats   | 28                               | 27-31  |
|  | <u> </u>   | 28                               | 27-31  |
| Whole<br>Soles                                       | <u> </u>   | 28                               | 27-31  |
| Whole<br>Soles                                       | Edible Meats   | 28<br>85                         | 27-31<br>75-90                                     |
| Whole Soles Dabs Lima                                | Edible Meats   |                                  |  |
| Whole Soles Dabs Lima                                | Edible Meats  anda proboscidea  D/H-On   | 85                               | 75-90  |
| Whole Soles Dabs Lima Round                          | Edible Meats  anda proboscidea  D/H-Off  | 85<br>64                         | 75-90<br>55-75                                     |
| Whole Soles Dabs Lima Round                          | Edible Meats  anda proboscidea  D/H-On  D/H-Off  Skinless Fillet   | 85<br>64                         | 75-90<br>55-75                                     |
| Soles  Dabs Lima Round  Dover Mic                    | Edible Meats  anda proboscidea  D/H-On  D/H-Off  Skinless Fillet  rostomus pacificus   | 85<br>64<br>23                   | 75-90<br>55-75<br>17-26                            |
| Soles  Dabs Lima Round  Dover Mic                    | Edible Meats  anda proboscidea  D/H-On  D/H-Off  Skinless Fillet  rostomus pacificus  D/H-On   | 85<br>64<br>23                   | 75-90<br>55-75<br>17-26<br>75-90                   |
| Soles  Dabs Lima Round  Dover Mic. Round             | Edible Meats  anda proboscidea  D/H-On  D/H-Off  Skinless Fillet  rostomus pacificus  D/H-On  D/H-Off  | 85<br>64<br>23<br>86<br>65       | 75-90<br>55-75<br>17-26<br>75-90<br>55-65          |
| Soles  Dabs Lima Round  Dover Mic. Round             | Edible Meats  anda proboscidea  D/H-On  D/H-Off  Skinless Fillet  rostomus pacificus  D/H-On  D/H-Off  Skinless Fillet                                 | 85<br>64<br>23<br>86<br>65       | 75-90<br>55-75<br>17-26<br>75-90<br>55-65          |
| Soles  Dabs Lima Round  Dover Mic. Round  English Pa | Edible Meats  Inda proboscidea  D/H-On  D/H-Off  Skinless Fillet  Inda proboscidea  D/H-On  D/H-On  D/H-On  D/H-Off  Skinless Fillet  Indapproperation | 85<br>64<br>23<br>86<br>65<br>29 | 75-90<br>55-75<br>17-26<br>75-90<br>55-65<br>26-32 |

| From       | То                      | Average (%) | Range (%) |
|------------|-------------------------|-------------|-----------|
| Soles (co  | ntinued)                |             |           |
| Flathead / | Hippoglossoides elassoc | lon         |           |
| Round      | D/H-On                  | 86          | 80-94     |
|            | D/H-Off                 | 67          | 60-79     |
|            | Skinless Fillet         | 27          | 25-32     |
| Petrale Ed | psetta jordani          |             |           |
| Round      | D/H-On                  | 86          | 75-90     |
|            | D/H-Off                 | 66          | 55-75     |
|            | Skinless Fillet         | 29          | 28-32     |
| Rex Glypto | ocephalus zachirus      |             |           |
| Round      | D/H-On                  | 85          | 75-90     |
|            | D/H-Off                 | 65          | 55-75     |
|            | Skinless Fillet         | 33          | 27-37     |
| Rock Lepi  | dopsetta bilineata      |             |           |
| Round      | D/H-On                  | 87          | 82-92     |
|            | D/H-Off                 | 67          | 62-78     |
|            | Skinless Fillet         | 28          | 22-30     |
| Yellowfin  | Limanda aspera          |             |           |
| Round      | D/H-On                  | 86          | 76-94     |
| -          | D/H-Off                 | 69          | 60-83     |
|            | Skinless Fillet         | 25          | 16-30     |
|            | Surimi                  | 11          |           |
|            | Kurimi                  | 48          |           |
| Squid L    | oligo sp.               |             |           |
| Whole      | Edible Meats            | 71          | 64-73     |
|            | Mantle w/Fins           | 52          | 45-55     |
|            | Mantle w/o Fins         | 39          | 36-42     |
|            | Tentacles               | 17          | 13-20     |
|            | Fins                    | 12          | 10-13     |

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| From     | То              | Average (%) | Range (%) |
|----------|-----------------|-------------|-----------|
| Sturgeon | Acipenser sp.   |             |           |
| Round    | D/H-On          | 85          | 82-87     |
| <u> </u> | D/H-Off         | 75          | 72-78     |
|          | Skin-On Fillet  | 56          | 50-59     |
|          | Skinless Fillet | 45          |           |
|          | Steaks          | 62          |           |
|          | Salted D/H-Off  | 46          |           |
|          | Smoked D/H-Off  | 56          |           |
|          | Roe             |             | 8-12      |
| D/H-On   | D/H-Off         | 88          |           |
|          | Skin-On Fillet  | 66          |           |
| •        | Skinless Fillet | 53          |           |
|          | Steaks          | 73          |           |

Trout Salmo sp., Salvelinus sp.

|         |                 |    | -        |
|---------|-----------------|----|----------|
| Round   | D/H-On          | 88 |          |
|         | D/H-Off         | 69 | <u> </u> |
|         | Skin-On Fillet  | 61 | 60-65    |
|         | Skinless Fillet | 55 |          |
|         | Steaks          | 60 |          |
| "       | Smoked D/H-Off  | 54 |          |
| D/H-On  | D/H-Off         | 78 |          |
|         | Skin-On Fillet  | 69 |          |
|         | Skinless Fillet | 63 |          |
|         | Steaks          | 68 |          |
| D/H-Off | Skin-On Fillet  | 88 | ·        |
|         | Skinless Fillet | 79 |          |
|         | Steaks          | 86 |          |
|         |                 |    |          |

## Trout, Farmed

Norwegian

| 70 |    |
|----|----|
| 78 |    |
| 69 |    |
| 63 |    |
|    | 69 |

| From      | То                | Average (%) | Range (%)     |
|-----------|-------------------|-------------|---------------|
| Tuna, All | oacore Thunnus al | alunga      |               |
| Round     | D/H-On            | 90          |               |
|           | D/H-Off           | 75          | <del></del> - |
|           | Skinless Fillet   | 35          |               |
|           | Steaks            | 65          |               |
| D/H-On    | D/H-Off           | 83          |               |
|           | Skinless Fillet   | 39          |               |
|           | Steaks            | 72          |               |

## Turbot, Greenland Reinhardtius hippoglossoides

| Round | D/H-On          | 90 |       |
|-------|-----------------|----|-------|
|       | D/H-Off         | 74 | 70-80 |
|       | Skinless Fillet | 30 | 25-35 |



### A Final Note

Every effort has been made to assure that the data presented in this publication are as accurate as possible. Since recovery information is highly dependent on processing techniques and handling systems, frequently conflicting data are generated. If you have contradictory information on any species, please let us know. Send additions and corrections to:

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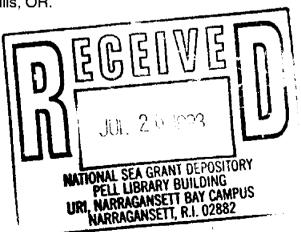
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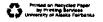
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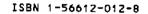
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