

**COMMITTEE OF AGE READING EXPERTS**  
**AGE STRUCTURE EXCHANGE INVOICE**

EXCHANGE ID NO.	11-004	SPECIES	Longnose Skates
EXCHANGE YEAR	2011	AREA	US West Coast
ORIGINATING AGENCY	ODFW	STRUCTURE	Vertebrae
COORDINATOR*	Josie Thompson	TECHNIQUE	Unstained thin sections
COOPERATOR(S)	Beth Matta, Chris Gbursk	PURPOSE	Calibration
	AFSC	SAMPLE n=	135
DATE INITIATED	3/29/2011	NO. READERS	3

SPECIMEN NUMBER	CAPTURE (MM/DD/YY)	AGENCY	AGENCY	AGENCY	AGENCY	AGENCY	ORIGINAL SAMPLE ID
		ODFW-1	ODFW-2	AFSC-1	AFSC-2		
1	1/17/08			17			OR084001-4
2	1/17/08	14	16	15-21	15		OR084001-7
3	1/17/08	18	15	19	14		OR084001-9
4	2/13/08	17	16	16			OR084002-1
5	2/13/08		13	14	13		OR084002-2
6	2/13/08	17	17		14-18		OR084002-3
7	2/13/08	13	13	11	14-18		OR084002-4
8	2/13/08	13	13	11	12		OR084002-5
9	2/13/08	8	10	16	11		OR084002-6
10	2/13/08	14	16	16	13		OR084002-7
11	2/13/08	18	21	16	18		OR084002-8
12	2/13/08	13	15	13	min 15		OR084002-9
13	2/13/08	8	10	10	10		OR084002-10
14	4/8/08	18	20	23	19		OR084004-1
15	4/8/08	13	14		14		OR084004-2
16	4/8/08	15	17	16	min 15		OR084004-3
17	4/8/08	13	16	15			OR084004-4
18	4/8/08	14	16	13	15-20		OR084004-5
19	4/8/08	13	15		13-16		OR084004-6
20	4/8/08	19	18	18	17		OR084004-7
21	4/8/08	24	25	17	20-28		OR084004-9
22	4/8/08	12	13	13	15		OR084004-10
23	5/12/08	18	18	17	17		OR084006-1
24	5/12/08	11	12	14	14		OR084006-2
25	5/12/08	14	17	14			OR084006-3
26	5/12/08	10	12	10	15		OR084006-4
27	5/12/08	10	11	9	9		OR084006-5
28	5/12/08	11	12	11	11		OR084006-6
29	5/12/08	13	16	11	15		OR084006-7
30	5/12/08	17	17	16	16		OR084006-8
31	5/12/08	14	14	14	15		OR084006-9
32	5/12/08	13	12	13			OR084006-10
33	6/17/08	17	18	13	15		OR084007-1
34	6/17/08	14	13	12	14-17		OR084007-2
35	6/17/08						OR084007-3
36	6/17/08	22	22	16	21		OR084007-4
37	6/17/08	16	17	13	20		OR084007-5
38	6/17/08	14	16	10	15		OR084007-6
39	6/17/08	17	17	15	15		OR084007-7
40	6/17/08	19	14	11	15		OR084007-8
41	6/17/08	23	21	15	21		OR084007-9

42	6/17/08	15	14	12	17		OR084007-10
43	7/13/08	18	22	13	17		OR084010-1
44	7/13/08	15	15	10	21		OR084010-2
45	7/13/08	14	15	12	16		OR084010-3
46	7/13/08	19	22	13			OR084010-4
47	7/13/08	18	18	12	17		OR084010-5
48	7/13/08	9	10	10	10		OR084010-6
49	7/13/08	17	24	12	19-22		OR084010-7
50	7/13/08	12	17	10	18		OR084010-8
51	7/13/08	13	15	7	12-17		OR084010-9
52	7/13/08	15	17	13	16		OR084010-10
53	8/11/08	10	12	9	15		OR084012-1
54	8/11/08	14	20	14	18		OR084012-2
55	8/11/08			9-12			OR084012-3
56	8/11/08	13	13	10	12		OR084012-4
57	8/11/08	12	13	12	11		OR084012-5
58	8/11/08						OR084012-6
59	8/11/08	9	10	9	10		OR084012-7
60	8/11/08	10	11	9	12		OR084012-8
61	8/11/08	11	12	8	10		OR084012-9
62	8/11/08	11	11	9	11		OR084012-10
63	9/5/08	12	11	10	10		OR084014-1
64	9/5/08	14	16	12	19		OR084014-2
65	9/5/08	13	13	9	18		OR084014-3
66	9/5/08	13	12	10	11		OR084014-4
67	9/5/08	13	15	10	15		OR084014-5
68	9/5/08	14	15	11	13		OR084014-6
69	9/5/08	14	13	11	14		OR084014-7
70	9/5/08	10	9	7	9		OR084014-8
71	9/5/08	13	13	9	14		OR084014-9
72	9/5/08	14	14	10	13		OR084014-10
73	9/12/08	12	16	12	15-20		OR084016-1
74	9/12/08	14	14	11	14		OR084016-2
75	9/12/08	24	25	16	18-22		OR084016-4
76	9/12/08	18	20	12	19		OR084016-5
77	9/12/08	15	14	11			OR084016-6
78	10/15/08	21	22	11	20-25		OR084019-1
79	10/15/08	17	18	11	17-21		OR084019-2
80	10/15/08	22	21	16	21		OR084019-3
81	10/15/08	17	17	15			OR084019-4
82	10/15/08	20	21	12	20-25		OR084019-5
83	10/15/08	12	13	9	13		OR084019-6
84	10/15/08	22		10			OR084019-7
85	10/15/08	21	21	13	min 15		OR084019-9
86	2/25/08	22	19	13			OR084029-1
87	2/25/08	17		10			OR084029-2
88	2/25/08	14	15	10			OR084029-4
89	2/25/08	19	19	11	16		OR084029-5
90	2/25/08	15	17	12	15		OR084029-6
91	2/25/08	9	10	9	9		OR084029-7
92	2/25/08	18	20	11	min 17		OR084029-9
93	2/25/08	22	24	18	24		OR084029-10

94	2/11/08	20	22	14	19		OR084030-3
95	2/11/08	14	15	8	14-18		OR084030-6
96	2/11/08	13	14	11	13		OR084030-7
97	2/11/08	11	11	11	12		OR084030-8
98	9/11/08	20	16	11	16		OR084054-6
99	9/11/08	8	9	6	7-10		OR084054-8
100	5/5/08	12	10	7	9		OR084055-1
101	5/5/08	21	19	18	18		OR084055-3
102	5/5/08	23	21	15	18		OR084055-6
103	5/5/08	14	14	9	11		OR084055-7
104	5/5/08	11	11	10	11		OR084055-9
105	12/1/08	13	13	14	13		OR084056-2
106	7/8/08	24	17	15	15-20		OR084058-1
107	7/8/08	19	18	16	17		OR084058-6
108	7/8/08	18	16	14	16		OR084058-8
109	1/15/08	17	16	12	15		OR084059-3
110	1/15/08	16	18	14			OR084059-4
111	1/15/08	16	17	14	15		OR084059-5
112	1/15/08	12	12	10			OR084059-6
113	1/15/08	11	10	10	13		OR084059-8
114	10/14/08	12	12	9	10		OR084061-2
115	10/14/08	11	11	9	10		OR084061-3
116	10/14/08	11	11	10	11		OR084061-5
117	10/14/08	11	14	10	10		OR084061-6
118	10/14/08	11	13	8	12		OR084061-10
119	10/1/08	9	9	8			OR084079-8
120	10/1/08	22	22	18	18		OR084079-9
121	10/1/08	12	12	9	10		OR084079-6
122	10/1/08		17	7			OR084079-7
123	10/1/08	22		12	17-20		OR084079-10
124	2/5/09	17	20	15	15		OR095001-4
125	2/5/09	16	19	15	15		OR095001-10
126	7/20/09	21	23	14	18		OR095010-2
127	7/20/09	16	15	11	14		OR095010-3
128	7/20/09	23	24	15			OR095010-5
129	7/20/09	18	17	14	13		OR095010-6
130	7/27/09	11	11	10	9		OR095011-3
131	7/27/09	20	20	16	16		OR095011-7
132	7/27/09	11	11	10	9		OR095011-10
133	8/4/09	24	22	13	13-16		OR095015-2
134	9/22/09	22	18	10	16		OR095018-1
135	9/22/09	21	18	9	17		OR095018-2

COMMENT AFSC-1 = Beth Matta, AFSC-2 = Chris Gburski, ODFW-1 and ODFW-2 : Josie Thompson (intra-reader estimates)

For statistics, only specimens without minimums or ranges were used for calculations.

USE AND USER INFO: A CARE member initiates an exchange by requesting an Exchange Id number from the CARE Age Structure Exchange Coordinator (CARE vice chair). The CARE member conducts and completes the exchange and submits this completed invoice to the Coordinator.

PRECISION STATISTICS

AVERAGE % ERROR   
 COEFFICIENT OF VARIATION

INDEX OF PRECISION   
 (ODFW-1,2) %AGREEMENT 21.4 ± 0  
 (AFSC-1,2) %AGREEMENT 14.3 % ± 0

APE (ODFW-1,2)  0.056563524  
 APE (AFSC-1,2)  0.118103223