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Proposed Otolith Marks for Brood Year 2007 Salmon in Russia

by

Elena Akinicheva

Magadan Scientific and Research Institute of Fisheries and Oceanography, Magadan, Russia

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In Russia, otolith marks are used for estimating hatchery's salmon returns and, accordingly, hatchery's efficiency. In addition, the differentiation of hatchery's and wild salmons in the early sea period allows to determine the survival of juvenile salmon, seasonal distribution, migration of juveniles, salmon population abundance. Detection of the marked salmons in the period of an ocean residence allows determining an area of distribution and a way of migrations for salmons of a different origin. This will provide an opportunity to recognize the salmons from different reproduction areas (Kamchatka, Sakhalin, Magadanskiy and Khabarovskiy regions) and hatcheries among salmon stocks.

The proposed otolith marks for the 2007 brood year salmon include 18 discrete dry patterns and 3 discrete thermal patterns which will be used at 17 hatcheries for marking 5 salmon species (Tables 1). In 2007 Russia plans to mark approximately 55 million chum, 5 million pink, about 100 thousand masu, 7 million coho, 1 million chinook and 10 million sockeye salmon. All rings of dry marks are induced by drainages of incubatory boxes. The thermal marking pattern is presented as the RBr notation (Munk and Geiger 1998; Hagen 1999) and Hatch code notation (Hagen et al. 2000).

References

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Table1.Plan marks from Russia for 2007 brood year stocks of salmon

№№	Mark Type	BROOD YEAR	YEAR OF RELEASE	SPECIES	COUNTRY	STATE/ PROVINCE	AGENCY	FACILITY	RBr	HATCH CODE
1	2	3	4	5	6	7	8	9	10	11
1	DM	2007	2008	chum	Russia	Magadanskaya	OhotskRV	Armanskiy Hatchery	1:1.5	5H
2	DM	2007	2008	chum	Russia	Magadanskaya	OhotskRV	Olskiy Hatchery	1:1.4,2.3	4,3H
3	DM	2007	2008	chum	Russia	Magadanskaya	MagadanNIRO	Olskiy Hatchery	1:1.4-2.3	4,3nH
4	DM	2007	2008	chum	Russia	Magadanskaya	OhotskRV	Tauyskiy Hatchery	1:1.7	7H
5	DM	2007	2008	chum	Russia	Magadanskaya	OhotskRV	Yanskiy Hatchery	1:1.3n-2.3n	3n-3nH
6	DM	2007	2008	chum	Russia	Kamchatka	Sev-VostRV	Ozerkovsky Hatchery	1:1.3,2.5	3,5H
7	DM	2007	2008	chum	Russia	Kamchatka	Sev-VostRV	Ketkinsky Hatchery	1:1.3,2.3	3,3H
8	DM	2007	2008	chum	Russia	Kamchatka	Sev-VostRV	Paratunsky Hatchery	1:1.6	6H
9	DM	2007	2008	chum	Russia	Kamchatka	Sev-VostRV	Viluysky Hatchery	1:1.3,2.2,3.2	3,2,2H
10	DM	2007	2008	chum	Russia	Kamchatka	Sev-VostRV	Yuzhno-Kamchatskiy Hatchery	1:1.3,2.1,3.2	3,1,2H
11	DM	2007	2008	chum	Russia	Khabarovskaya	Kometa	Kometa Hatchery	1:1.8n	8nH
12	DM	2007	2008	chum	Russia	Khabarovskaya	AmurRV	Gurskiy Hatchery	1:1.5n,2.2	5n,2H
13	DM	2007	2008	chum	Russia	Khabarovskaya	AmurRV	TeplovskiyHatchery	1:1.5,2.2	5,2H
14	DM	2007	2008	chum	Russia	Khabarovskaya	AmurRV	UdinskiyHatchery	1:1.3n,2.3	3n3H
15	DM	2007	2008	chum	Russia	Khabarovskaya	AmurRV	BidzhanskiyHatchery	1:1.4n	4nH
16	DM	2007	2008	chum	Russia	Sakhalin	SakhRV	LazovoyHatchery	2:1.5n	H5n
17	**TM**	2007	2008	chum	Russia	Sakhalin	SakhRV	SokolnikovskiyHatchery	1:1.5n	5nH
18	DM	2007	2008	pink	Russia	Magadanskaya	OhotskRV	Olskiy Hatchery	1:1.4,2.3	4,3H
19	DM	2007	2008	pink	Russia	Magadanskaya	OhotskRV	Viluysky Hatchery	1:1.3n-2.3n	3n,3nH
20	DM	2007	2009	sockeye	Russia	Magadanskaya	OhotskRV	Olskiy Hatchery	1:1.4,2.3	4,3H
21	DM	2007	2008	sockeye	Russia	Kamchatka	Sev-VostRV	Ozerkovsky Hatchery	1:1.3,2.1,3.2	3,1,2H
22	**TM**	2007	2009	sockeye	Russia	Kamchatka	Sev-VostRV	Malkinsky Hatchery	1:1.3,2.2	3,2H
23	DM	2007	2009	coho	Russia	Magadanskaya	OhotskRV	Armanskiy Hatchery	1:1.5	5H
24	DM	2007	2008	coho	Russia	Magadanskaya	OhotskRV	Olskiy Hatchery	1:1.4,2.3	4,3H
25	DM	2007	2009	coho	Russia	Magadanskaya	OhotskRV	Tauyskiy Hatchery	1:1.7	7H
26	DM	2007	2008	coho	Russia	Magadanskaya	OhotskRV	Yanskiy Hatchery	1:1.3n-2.3n	3n,3nH
27	DM	2007	2008	coho	Russia	Kamchatka	Sev-VostRV	Paratunsky Hatchery	1:1.4	4H
28	DM	2007	2008	coho	Russia	Kamchatka	Sev-VostRV	Viluysky Hatchery	1:1.3,2.2,3.2	3,2,2H
29	**TM**	2007	2009	chinook	Russia	Kamchatka	Sev-VostRV	Malkinsky Hatchery	2:1.3,2.2	H3,2
30	DM	2007	2008	masu	Russia	Khabarovskaya	Комета	Kometa Hatchery	1:1.4n,2.2n	4n,2nH