Monitoring dynamics of water surface and wetlands areas in the Southern Priaralie

The water surface and wetlands areas in the Southern Priaralie in October 2011 were determined using satellite images in the SIC ICWC (Fig. 1, Table 1,2).

Table 1 contains wetlands with water surface area which could be assessed by using satellite images; it doesn't contain, for example, the former Adjibay gulf and wetland Adjibay 2 because they have no open water surface area what is caused by relief, vegetation phase and water inflow to the Southern Priaralie.

Table 2 contains wetland's areas in the Southern Priaralie in October 2011.

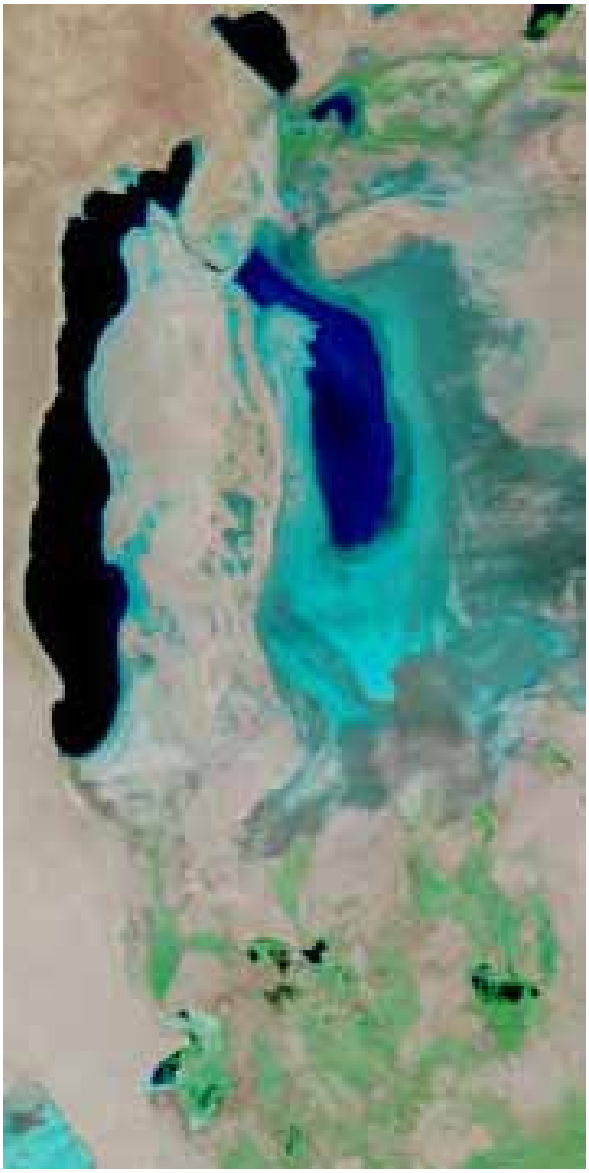

Fig. 1. Southern Priaralie and Big Aral Sea - October 2011

Table 1

Water surface area, ha
(March-October 2011)

Water body	March 2011	April 2011	May 2011	June 2011	July 2011	August 2011	September 2011	October 2011
Sudochie	37092,19	35913,96	33648,61	24485,28	11069,20	8320,55	6185,61	7449,77
Mejdurechenskoe	9129,81	9639,56	6782,32	4432,05	1810,49	1021,71	501,69	745,35
Rybachie	3794,98	5952,92	5147,21	4849,01	4506,62	3898,91	3069,57	2971,21
Muinakskoe	5182,66	5184,01	4272,57	3509,57	1944,59	1853,53	1543,02	3690,91
Djyltyrbas bounded by dam	13821,67	13976,22	10008,75	8317,50	6975,49	6079,45	5060,18	7969,06
Djyltyrbas (with the former right and left channels)	34609,06	29308,85	14233,13	11588,28	7965,55	6774,74	-	-
Dumalak	1506,72	1579,32	578,25	1152,46	361,41	-	-	175,02
Makpalkol	811,85	2533,15	1723,48	1871,28	1679,98	1183,93	950,23	314,74
Mashan-Karadjar	5269,31	6244,58	4472,06	2725,90	1541,69	906,57	215,70	331,52
Wetland to the south from Muinak	2065,57	1562,82	853,12	-	-	-	-	712,53
Wetlands along the bed of the Kazakhdarya river	2976,06	4885,01	3139,67	1720,04	1486,70	813,92	-	281,10
Zakirkol lake	546,38	1010,07	353,99	357,78	-	-	-	-
Total	***102984,59***	***103814,3***	***75204,41***	***56691,65***	***39341,72***	***24773,85***	***17526,01***	***24641,21***

Table 2

Wetland area, ha (March-October 2011)

Water body	Wetlands							
	March	April	May	June	July	August	September	October
Sudochie	-	29707,42	31547,52	33782,09	43742,16	43212,64	38915,36	38378,50
Mejdurechenskoe	-	1845,53	19181,39	18061,27	23174,17	23940,74	22464,96	21670,20
Rybachie	-	2163,22	3931,89	4247,80	4529,71	4682,17	5531,11	2634,24
Muinakskoe	-	7328,11	7830,41	9129,10	9793,37	10191,76	9832,71	9339,70
Djyltyrbas bounded by dam	-	18898,65	27340,65	33854,90	33797,10	32166,29	37543,86	36850,68
Djyltyrbas (with the former right and left channels)	-	46525,38	62930,40	84745,11	102958,17	105510,70	113097,43	112063,17
Former Adjibay gulf	12299,19	18773,25	19852,74	20320,06	20716,32	20807,54	21023,07	20589,06
Dumalak	2673,17	3403,11	10456,37	11247,56	14812,37	15926,23	15986,01	15879,23
Adjibay 2*)	-	2954,82	10785,62	11020,14	9825,73	10269,62	10614,93	9967,45
Makpalkol	375,91	415,89	9357,21	7548,23	7829,15	6227,70	5947,13	6518,23
Mashan-Karadjar	1873,21	4838,41	8596,91	9753,42	12585,21	14141,98	14128,59	13207,71
Wetland to the south from Muinak	-	6620,41	7216,25	7574,51	7783,69	8647,12	8917,52	7699,59
Wetland to the North-West from Muinak	3284,16	3372,18	3723,05	4815,21	5407,45	6792,69	6107,01	5418,12
Wetlands along the bed of the Kazakhdarya river	2784,36	5483,46	9634,70	14805,13	17289,13	18651,34	16508,04	17142,36
Zakirkol lake	734,35	1236,08	2177,82	2345,17	3134,87	3241,65	3721,54	3689,24
Total	***24024,35***	***153565,92***	***207222,28***	***239394,8***	***283581,5***	***292243,88***	***292795,4***	***284196,8***

The water surface area is decreased by 86 thousand ha from April till September, and it is increased by 7 thousand ha from September till October (Table 1). If comparing data from March (the beginning of vegetation period in the Southern Priaralie) till October 2011, the biggest area of lake's overflow is observed in April, but a maximal area of wetlands - from August till October. Fig. 2 demonstrates relation between water surface area and wetland's areas in the Southern Priaralie.

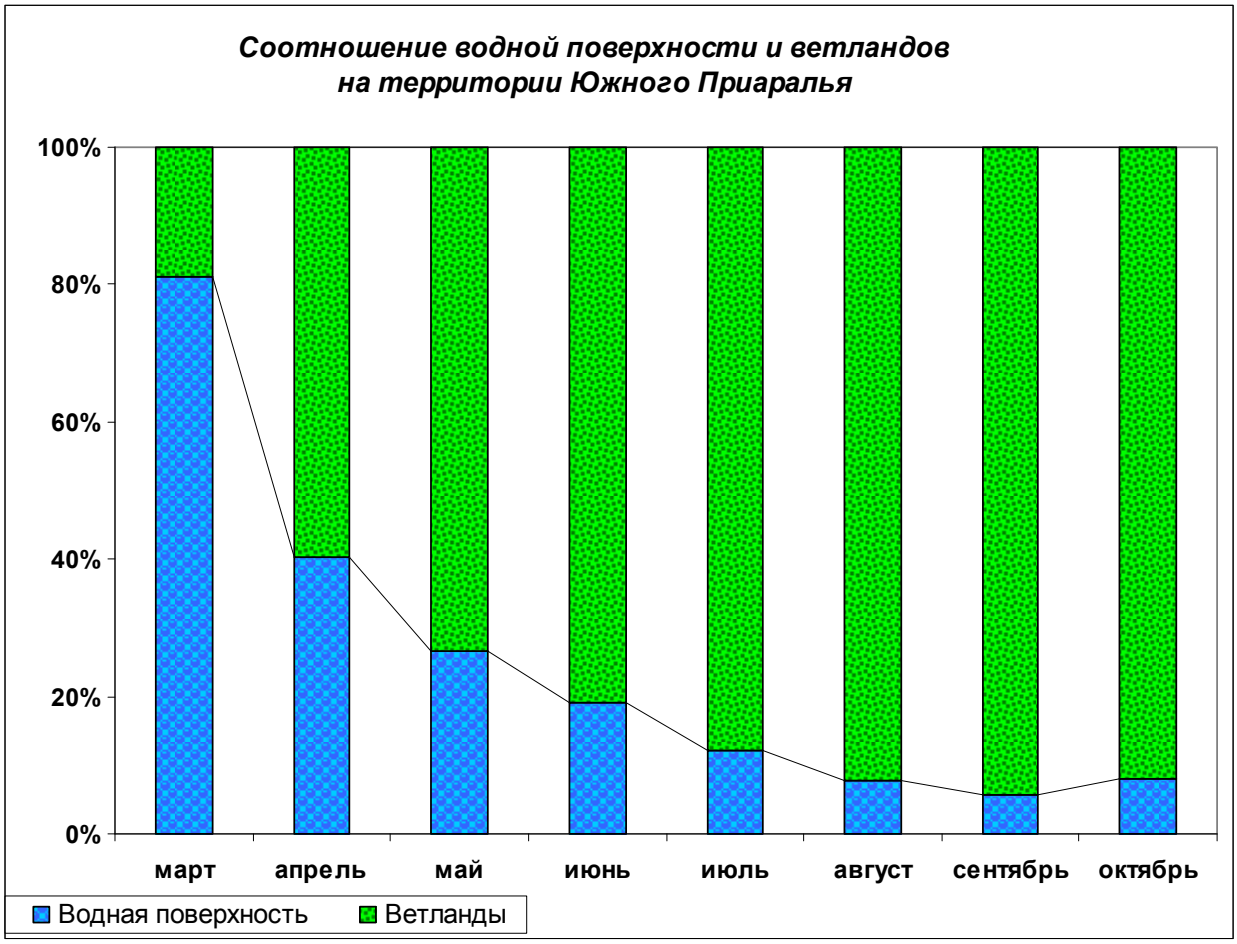

Fig. 2