

PHYTOPLANKTON OF THE ARAL SEA

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Table 1. Succession of taxonomic structure of phytoplankton 1925-2005.

Taxa	1925 (Kiselev, 1927)	1967-1974 (Pichkily, 1981)	1993-1995 (Orlova et al., 1998)	1999-2002 (Mirabdul- laev et al., 2004)	2004	2005
Cyanophyta	41	79		30	14	14
Bacillariophyta	210	104		115	39	41
Pyrrophyta	15	28		3	3	3
Euglenophyta	-	3		2	-	-
Chlorophyta	109	60		9	6	12
Total number of taxa	375	306	245	159	62	70

Table 2. Species composition of phytoplanktome
of the Aral sea
2005

Taxa	East	West
CYANOPHYTA		
<i>Microcystis aeruginosa</i> Kutz. <i>Em. Elenk.</i>	+	+
<i>Oscillatoria sp.(limosa?)</i>	+	-
<i>Osc.chlorina (Kutz) Gom.</i>	+	+
<i>Merismopedia glauca</i> <i>(Ehr.)Nag.</i>	+	+
<i>Gloeocapsa alpina</i> Nag.emend <i>Band</i>	+	+
<i>Gl.alpina f.lignicola</i> <i>Hollerb.(Rabenh.)</i>	+	-
<i>Gl.turgida (Kutz.) Hollerb.</i>	+	+
<i>Synechococcus sp.(salina?)</i>	+	+
<i>Phormidium ambiguum</i> Kissel	+	+
<i>Phormidium sp.</i>	+	+
<i>Lyngbya sp.</i>	+	+
<i>L.Kuetzingii (Kutz) Schmidle</i>	-	+
<i>Spirulina sp.</i>	+	+
<i>Anabaena sp.(flos-aquae?)</i>	-	+

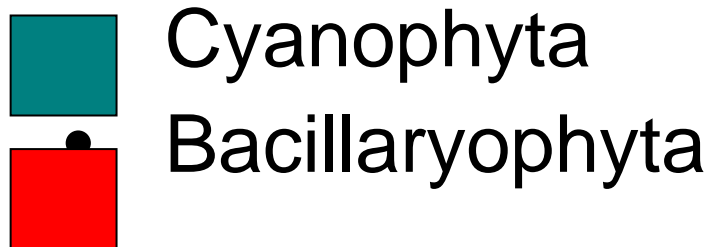
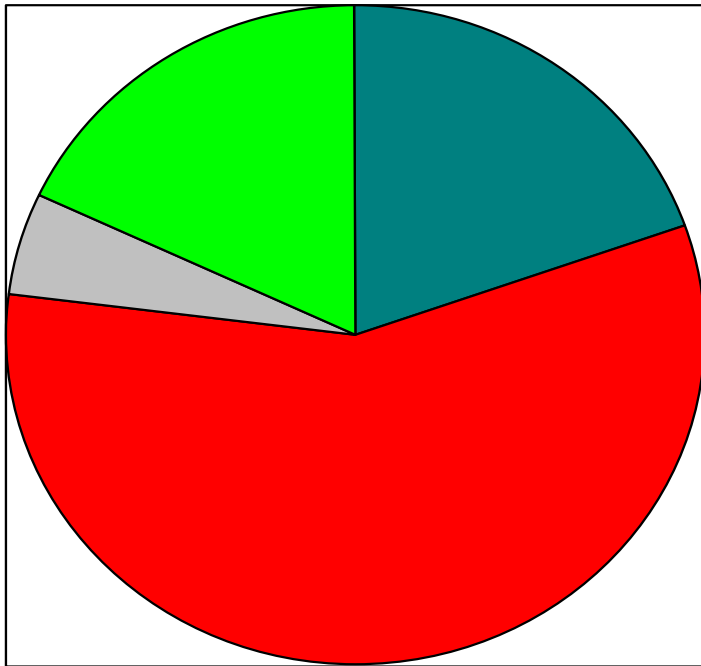
BACILLARIOPHYTA		
<i>Cyclotella sp.</i>	+	+
<i>C.meneghiniana Kutz.</i>	+	-
<i>Melosira varians Ag.</i>	+	-
<i>Synedra sp. (minuscula?)</i>	+	+
<i>Synedra tabulata v.parva (Kutz)Grun.</i>	+	+
<i>Synedra tabulata (Ag.)Kutz.</i>	-	+
<i>Fragilaria construens (Ehr.)Grun.</i>	+	+
<i>Diatoma elongatum v.tenue (Ag.) V.H.</i>	+	-
<i>Actinocyclus sp.</i>	+	+
<i>Achnanthes minutissima Kutz.</i>	+	+
<i>Ach. affinis Grun.</i>	-	+
<i>Achnanthes sp.</i>	-	+
<i>Coscinodiscus sp.</i>	+	-
<i>Cocconeis sp.</i>	+	+
<i>Cocconeis placentula Ehr.</i>	+	+
<i>C. placentula v.euglypta (Ehr.)Cl.</i>	-	+
<i>C.scutellum Ehr.</i>	-	-
<i>Diploneis interrupta</i>	+	+
<i>Navicula cincta (Ehr.) Kutz.</i>	+	+
<i>Navicula sp.</i>	+	+
<i>N.cryptocephala Kutz.</i>	+	+
<i>N.cryptocephala v.veneta Kutz.</i>	+	+
<i>N.Kolbei Poretz et Aniss</i>	-	+

<i>Entomoneis paludosa</i> Reimer (<i>Amphiprora</i> W.Sm.)	+	+
<i>Amphora .holsatica</i> Hust.	+	+
<i>A.coffeaformis</i> Ag.	+	+
<i>A. ovalis</i> Kutz.	+	+
<i>A.veneta</i> Kutz.	+	+
<i>A.robusta</i> Greg.	-	+
<i>Hantzshia virgata</i> v. <i>capitellata</i> Hust.	+	+
<i>Nitzschia</i> sp. (<i>palea</i> ?)	+	+
<i>N.acicularis</i> W.Sm.	+	-
<i>N closterium</i> (Ehr.)W.Sm.	+	+
<i>N.microcephala</i> Grun.	+	+
<i>N.cf.sigma</i> (Kutz.)	+	+
<i>N.vermicularis</i> (Kutz.)	+	-
<i>N.punctata</i> v. <i>aralensis</i> Borszczow	+	+
<i>Gyrosigma scalproides</i> (<i>Rabenh</i>) Cl.	+	+
<i>G.acuminatum</i> (kutz.)Raben.	+	+
<i>Surirella cf.ovata</i> Kutz.	+	+
<i>S.sp.</i> (. <i>crumenosa</i> ?)	+	+
<i>Campilodiscus aralensis</i> Kissl.	+	-

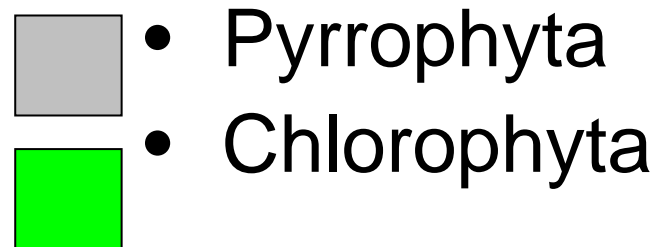
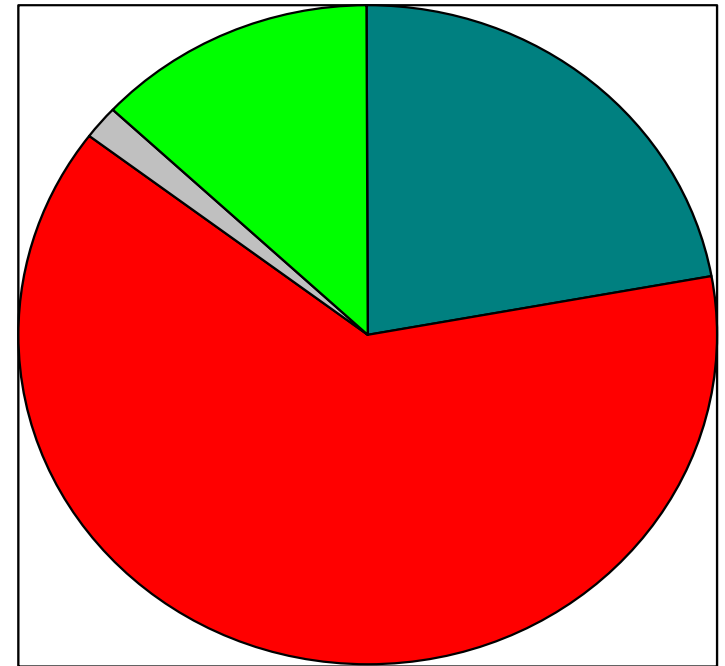
PYRROPHYTA		
<i>Glenodinium sp.</i>	+	+
<i>Cryptomonas sp.</i>	+	-
<i>Peridinium sp.</i>	+	-
CHLOROPHYTA		
<i>Chlorella sp.</i>	+	+
<i>Oocystis sp.(borgei Snow?)</i>	+	+
<i>Ooc.marssonii Lemm.</i>	+	+
<i>Cosmarium formulosum Hoff.</i>	+	-
<i>Algae g.sp.(Dunaliella?)</i>	+	+
<i>Chlorococum sp.</i>	+	+
<i>Chlorocococcus turgida</i>	+	+
<i>Scenedesmus quadricauda Breb.</i>	+	-
<i>Ankistrodesmus acicularis (Ag.Br.)</i>	+	-
<i>Ank.minutissima Korsch.</i>	-	+
<i>Dactyosphaerium pulchellum Wood.</i>	+	-
<i>Tetraedron minimum (Ag.Br.) Hans.</i>	+	-
Number of species	61	54

PHYTOPLANKTON OF THE ARAL SEA 2005

- East side



- West side



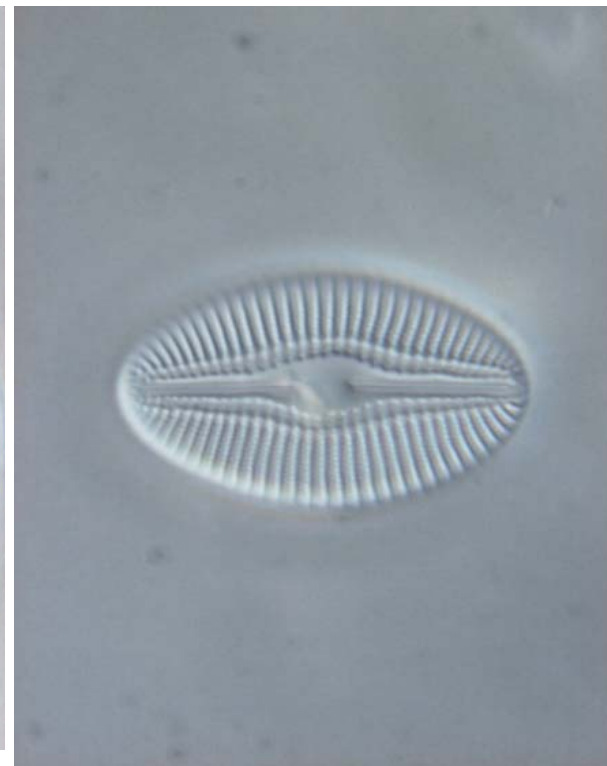
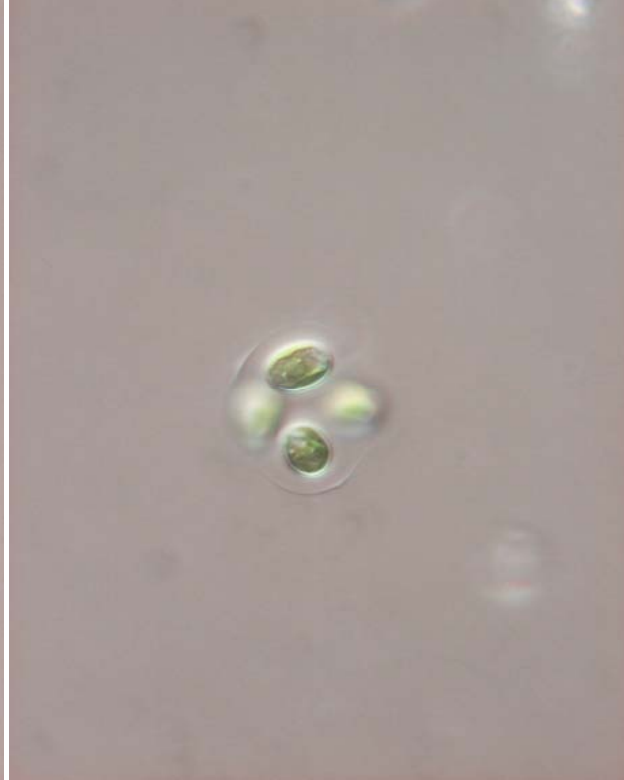
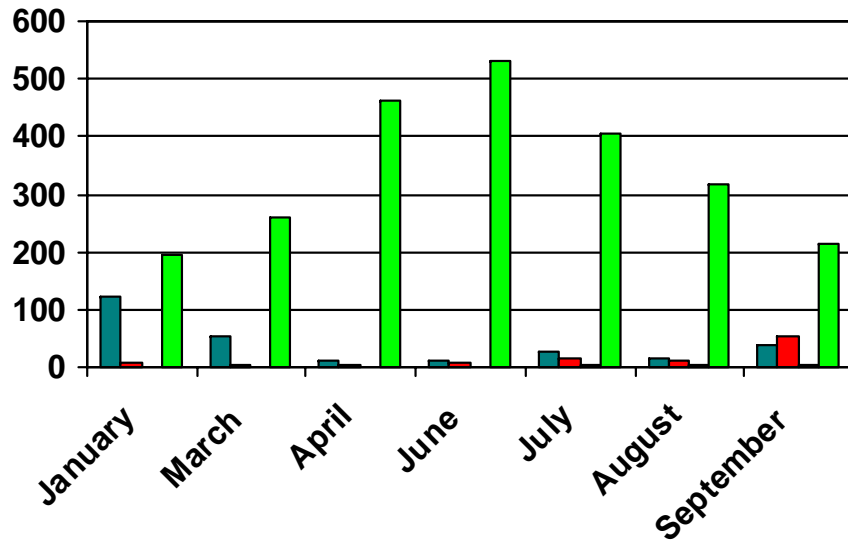


Image 2. Number of cells/l

• East side



• West side

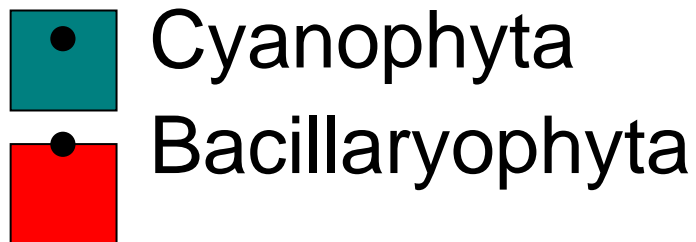
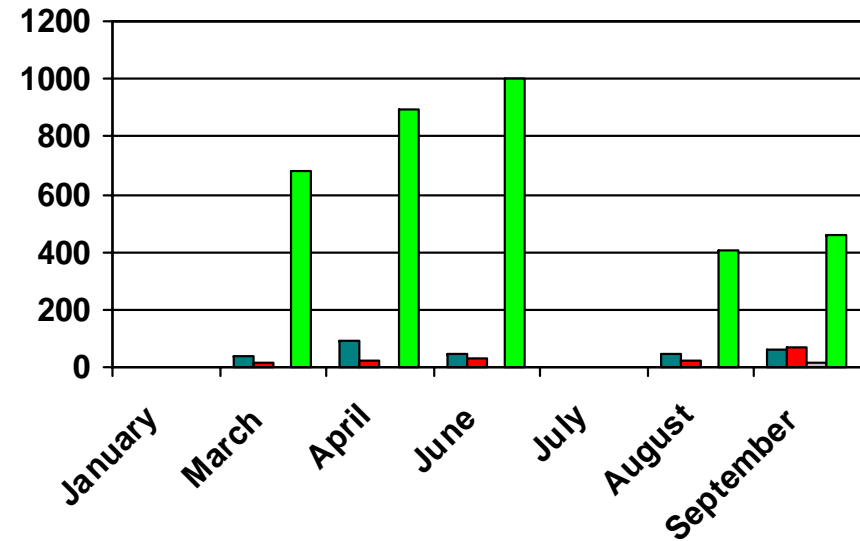
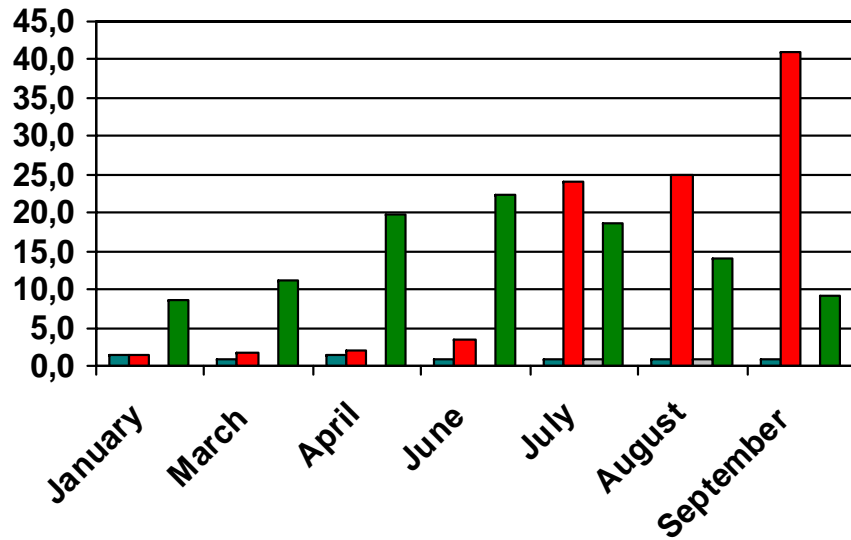
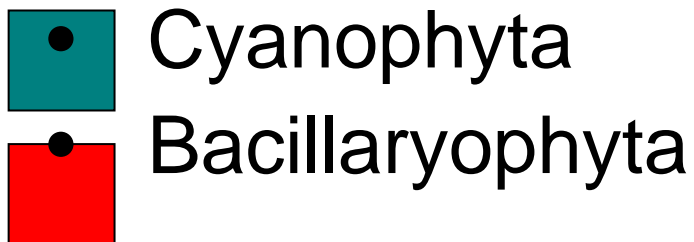
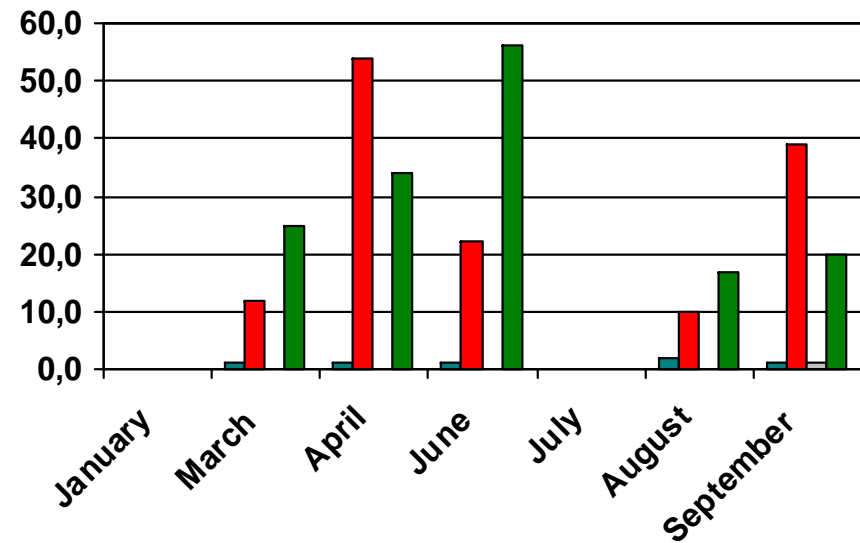


Image 3. Biovolum mg/l

• East side

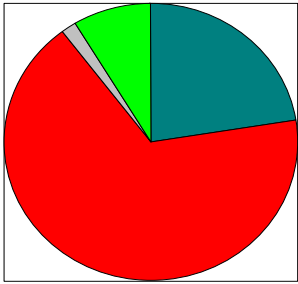


• West side

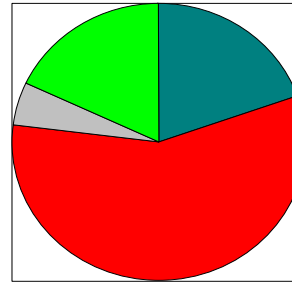


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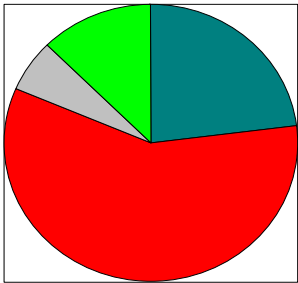
- East side 2004



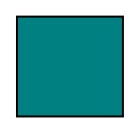
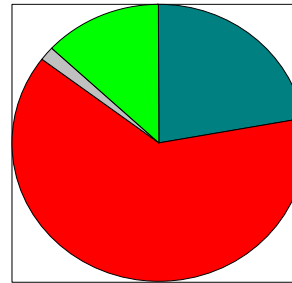
- East side 2005



- West side



- West side



- Cyanophyta



- Bacillariophyta



- Pyrrophyta



- Chlorophyta