

Electronic Supplementary Material

ESM\_3. Diatom taxa list from saline aquatic habitats of Kenya, Namibia, and India, frequented by Lesser Flamingos on search for food algae to the article published in “Hydrobiologia”, Springer ©

Food algae for Lesser Flamingos: a stocktaking

by

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ESM\_3. Diatom taxa list from saline aquatic habitats of Kenya, Namibia, and India, frequented by Lesser Flamingos on search for food algae.

Frequency is listed according to following code: 3 (mass development or very numerous), 2 (numerous), 1 (seldom), x (single occurrence), in consideration of other algae and cyanobacteria. Ecological preferences FW: fresh water; BW: brackish water, SW: sea water; ISW: inland salt water. On the bottom of the table the sum of preferences calculated: only FW or only BW/SW preference and ISW species, as sum of occurrence and sum of frequency (x were assessed as 0.2).

		Soda lakes		Marine mudflats	Salt evaporation ponds		Salt Pan
		Nakuru	Natron	Walvis Bay lagoon	Walvis Bay	Swakop-mund	Little Rann of Kutch
Preference		Cyanobact. dominance	non Cyanobact. dominance				
<i>Achnanthes delicatula</i> ssp. <i>engelbrechtii</i> (Chol.) L.-B.	BW, ISW			1			
<i>Achnanthes minutissima</i> var. <i>jackii</i> (Rabenhorst) L.-B.	FW				1		
<i>Actinoptychus senarius</i> (Ehrenbg.) Ehrenbg.	SW					1	
<i>Amphora</i> spec.							1
<i>Anomoeoneis sphaerophora</i> Pfitzer	FW	1	3	3			
<i>Anomoeoneis sphaerophora</i> f. <i>costata</i> (Kützing) Schmidt	FW, ISW	x					
<i>Asterionella formosa</i> Hassall	FW	1					
<i>Aulacoseira</i> cf. <i>ambigua</i> (Grunow) Simonsen	FW	1					
<i>Aulacoseira granulata</i> (Ehrenbg.) Simonsen	FW	1	1				
<i>Auliscus sculpus</i> (W.Smith) Ralfs	SW			x		x	
<i>Bacillaria paxillifer</i> Gmelin	SW, ISW				1		
<i>Caloneis molaris</i> (Grunow) Krammer	FW		x				
<i>Campylodiscus bicostatus</i> W. Smith	SW, ISW			1			1
<i>Centronella reicheltii</i> Voigt	FW	1					
<i>Cocconeis disculus</i> (Schumann) Cleve	FW			x			
<i>Cocconeis neodiminuta</i> Krammer	FW					x	
<i>Cocconeis placentula</i> Ehrenbg.	FW				x		

<i>Coscinodiscus</i> spec.		x					
<i>Craticula accomodiformis</i> L.-B.	FW		1			x	
<i>Craticula buderii</i> (Hustedt) L.-B.	FW, ISW	1					2
<i>Craticula minusculoides</i> (Hustedt) L.-B.	FW						2
<i>Cyclostephanos delicatus</i> (Genkal) Casper & Scheffler	FW	x					
<i>Cyclostephanos dubius</i> (Fricke) Round	FW, BW	1					
<i>Cyclotella balatonis</i> Pantocsek	FW						
<i>Cyclotella comensis</i> Grunow	FW	1					
<i>Cyclotella meneghiniana</i> Kützing	FW, BW	1	1		1		x
<i>Cyclotella ocellata</i> Pantocsek	FW	1	1				
<i>Cyclotella polymorpha</i> Meyer & Hakansson	FW	1	x				
<i>Cyclotella radiosa</i> (Grunow) Lemmermann	FW	1					
<i>Cyclotella rossii</i> Hakansson	FW	x					
<i>Cyclotella striata</i> Grunow	SW, BW						1
<i>Delphineis karstenii</i> (Boden) Fryxell	SW, BW				x		x
<i>Dimeregramma minor</i> var. <i>nana</i> (Gregory) Van Heurck	SW				x		
<i>Diploneis</i> spec.							x
<i>Diploneis subovalis</i> Cleve	FW						3
<i>Encyonema</i> cf. <i>neogracile</i> Krammer	FW				x		1
<i>Encyonema</i> spec. 1	FW					1	
<i>Eolimna utermoehlii</i> (Hustedt) L.-B., Kulikovskiy & Witkowski	FW				x		
<i>Epithemia adnata</i> (Kützing) Brebisson	FW, BW	x					
<i>Epithemia sorex</i> Kützing	FW, BW	x					
<i>Fallacia cryptolyra</i> (Brockmann) Stickle & D.G. Mann	SW,BW,ISW				x		
<i>Fragilaria arcus</i> (Ehrenberg) Cleve	FW						x
<i>Fragilaria capucina</i> var. <i>gracilis</i> (Oestrup) Hustedt	FW	x					
<i>Fragilaria</i> sp.							x
<i>Fragilaria tabulata</i> (C. Agardh) L.-B.	FW	x					
<i>Fragilaria ulna</i> (Nitzsch) L.-B.	FW	x	x				

<i>Gomphonema auritum</i> A.Braun ex Kützing	FW				x	
<i>Gyrosigma acuminatum</i> (Kützing) Rabenhorst	FW, ISW					1
<i>Halamphora cf. veneta</i> (Kützing) Levkov	FW	1				
<i>Halamphora cf. veneta</i> var. <i>somalica</i> (Freng.) Levkov	FW			x		
<i>Halamphora coffeaeformis</i> (C. Agardh) Levkov	FW,BW,ISW			1	2	
<i>Hantzschia amphioxus</i> (Ehrenbg.) Grunow	FW, BW		x			
<i>Hippodonta neglecta</i> L.-B., Metzeltin & Witkowski	FW		x			
<i>Luticola mutica</i> (Kützing) Mann	FW,BW,ISW		1			x
<i>Lyrella</i> spec.	SW, BW			1		
<i>Mastogloia elliptica</i> var. <i>dansei</i> (Thwaites) Grunow	BW, ISW					
<i>Mastogloia smithii</i> Thwaites	BW	1				
<i>Mayamea atomus</i> var. <i>atomus</i> (Kützing) L.-B.	FW					1
<i>Navicula cf. cryptotenelloides</i> L.-B.	FW			x		
<i>Navicula cf. halinae</i> Witkowski, L.-B & Metzeltin	SW			x	3	
<i>Navicula cincta</i> (Ehrenbg.) Ralfs	FW			1		
<i>Navicula cryptotenella</i> L.-B.	FW				1	
<i>Navicula gregaria</i> Donkin	FW	x				
<i>Navicula libonensis</i> Schoemann	FW			x		
<i>Navicula salinarum</i> Grunow	FW,BW,ISW			x		1
<i>Navicula salinarum</i> var. <i>rostrata</i> (Hustedt) L.-B.	FW,BW,ISW			x		
<i>Navicula subminuscula</i> Manguin	FW				x	
<i>Nitzschia cf. elegantula</i> Grunow	FW, SW	x				
<i>Nitzschia cf. regula</i> Hustedt	FW		x			
<i>Nitzschia compressa</i> var. <i>compressa</i> (Bailey) Boyer	SW, BW					x
<i>Nitzschia dissipata</i> (Kützing) Grunow	FW	1	x	x		
<i>Nitzschia fonticola</i> Grunow	FW		1			
<i>Nitzschia frustulum</i> (Kützing) Grunow	FW, BW	1				
<i>Nitzschia intermedia</i> Hantzsch	FW		2			
<i>Nitzschia liebethrutii</i> Rabenhorst	FW, BW	1		1		
<i>Nitzschia ovalis</i> Arnott ex Grunow	SW,BW,ISW			1		

<i>Nitzschia palea</i> (Kützing) W. Smith	FW	1	3	2		1		
<i>Nitzschia perspicua</i> Cholnoky	ISW			1				
<i>Nitzschia pusilla</i> Grunow	FW			1				
<i>Nitzschia scalpelliformis</i> Grunow	BW, SW				x		x	2
<i>Nitzschia sigma</i> (Kützing) W. Smith	FW		1					1
<i>Nitzschia sigmoidea</i> (Nitzsch) W. Smith	FW	x						
<i>Nitzschia</i> sp.								1
<i>Nitzschia supralitorea</i> L.B.	FW	1	2	1		x		
<i>Opephora olsenii</i> Möller	SW, BW				1			2
<i>Opephora</i> sp.	SW, BW				3	3		3
<i>Paralia sulcata</i> (Ehrenberg) Cleve	SW							1
<i>Parlibellus</i> sp.	SW, BW					2		
<i>Pinnularia dubitabilis</i> var. <i>minor</i> Krammer	FW		x					
<i>Planothidium delicatulum</i> (Kützing) Round & Bukhtiyarova	FW					x		
<i>Rhopalodia gibberula</i> (Ehrenbg.) O. Müller	FW, ISW	1	3		1	1		
<i>Stauroneis phoenicenteron</i> (Nitzsch) Ehrenbg.	FW				x	x		
<i>Stauroneis producta</i> Grunow	FW, BW				x			
<i>Staurosira brevistriata</i> (Grunow) Grunow	FW	1			x			
<i>Staurosira venter</i> (Ehrenbg.) Grunow	FW				x			
<i>Stephanodiscus aegyptiacus</i> Ehrenbg.	FW	1	2					
<i>Stephanodiscus hantzschii</i> Grunow f. <i>hantzschii</i>	FW	x						
<i>Stephanodiscus hantzschii</i> Grunow f. <i>tenuis</i>	FW							
<i>Stephanodiscus neoastraea</i> Hakansson & Hickel	FW	x						
<i>Stephanodiscus parvus</i> Stoermer & Hakansson	FW	1						
<i>Tabellaria</i> sp.	FW	x			x			
<i>Thalassiosira</i> cf. <i>proschkinae</i> Makarova	SW		x					
<i>Thalassiosira</i> sp.	FW	1	1					
Sum of taxa		38	24	11	27	19	14	10
Sum of frequency		26	25.8	15.2	13.8	19.4	11.4	11.4

Sum of taxa with FW preference only	26	19	5	12	10	6	2
Sum of taxa with ISW preference	3	2	4	6	5	1	2
Sum of taxa with SW or SW/BW preference	1	1	2	9	5	7	4
Sum of frequency of taxa with FW preference only	18	20.4	7.2	3.2	5.2	2.6	4
Sum of frequency of taxa with ISW preference	2.2	4.0	5	4.4	6.0	1.0	2.0
Sum of frequency of taxa with SW or SW/BW preference	0.2	0.2	2	7.0	9.2	7.6	4.2