

polymorphism
Rotifera

2003/12/23
2004/06/20

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.
(*Keratella cochlearis*, *Brachionus calyciflorus*)
Asplanchna priodonata)
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Study of polymorphism of two Rotiferan species in Mzareeb Lake

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ABSTRACT

Rotifers considered as one of the important zooplankton in the ecological system of fresh water lakes. It's an essential food for many species of fish. So, it's important to be available all over the year with enough abundance. In the predator presence, polymorphism is considered an effective way for the species protection. For that reason, one spine or more of the studied species (*Keratella cochlearis*, *Brachionus calyciflorus*) are being built at the same time where the predator (*Asplanchna priodonta* or different species of crustaceans) are in the lake. These spines usually disappear during the predator absence. This study also reveals that there is no clear role for the temperature or abiotic factors in the polymorphism operation.

Key words: Hydroorganisms, Polymorphism, Rotifers, Mzareeb lake, Syria

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(.... pH – (... –)

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John J.Gillbert 1973-1977-1980-1984-1987 E.S.Wurdak1976)

Richard S.Stemberger1990- Philip A.Jones1977 Michel E.Kabay1977.

Horacio E.Zagarese1991 Barry J.Wicklo1988 (1987-1984

Irena - Maria Cristina Marinone 1991

. Rybnik 1995 Bielanska - Grajner

John J.Gillbert Richard S.Stemberger1984

Keratella

Asplanchna Omnivorus

.*Keratella slacki* *Asplanchna*

richard S.Stemberger John J.Gillbert 1987

Keratella

Maria Horacio E.Zagarese1991

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Cristina Marinone

) *Keratella tropica*

.IrenaBielanska-Grajner 1995 *keratella* (

Keratella

.(1996) *Asplanchna*

Brachionus calyciflorus -1

Keratella cochlearis

-2

Asplanchna

-3

-4

-5

36 01'

32 44'

12

8

435

. 2

(/ 500)

) .

.(2000

20/6/2003

20/4/2002

15

)

Kemmer water sampler

(

10%
(NH₄⁺, NO₃⁻, NO₂⁻, SO₄⁻, PO₄⁻³)

(28µm)

pH

DR2000

)

16

(

(

)

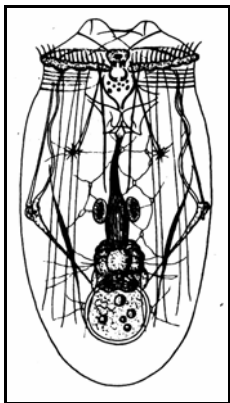
.(Kost,w.1978)
150 100
1
(1997 .) Arndt
(60-70)
.(Pinel-Aloul, B.1989) 100

. Kost,1978 Pliomida Monogononta
Rotifera - 1
Monogononta
Ploimida

Asplanchnidae (Herzing et mgers 1926)
Asplanchna priodonata (Gosse 1850)
µm 1500 500

(Icude)

.(1)



100*



Asplanchna priodonata (1)

.(Gillbert, J. J1980).*Keratella*

Rotifera -2

Monogononta

Ploimida

Brachionidae (Wesenberg-lund1899)

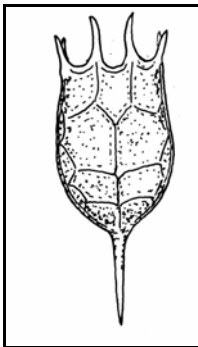
Keratella cochlaris (Gosse)

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.()

(3) *Keratella cochlaris tecta* : ()
:(4) *Keratella cochlaris cochlaris*

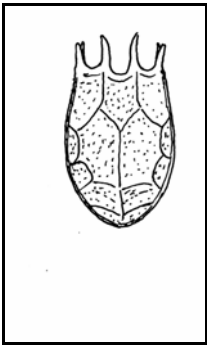


100*



K.c.Cochlearis

(2)



100*



.K.c.tecta

(3)

(1)

K.c.Cochlearis

(1)

. K.c.tecta

	μm	μm	
37 μm	53	91	<i>K. cochlearis .cochlearis</i>
	61	94	<i>K. cochlearis .tecta</i>

(2)

K.c.Cochlearis

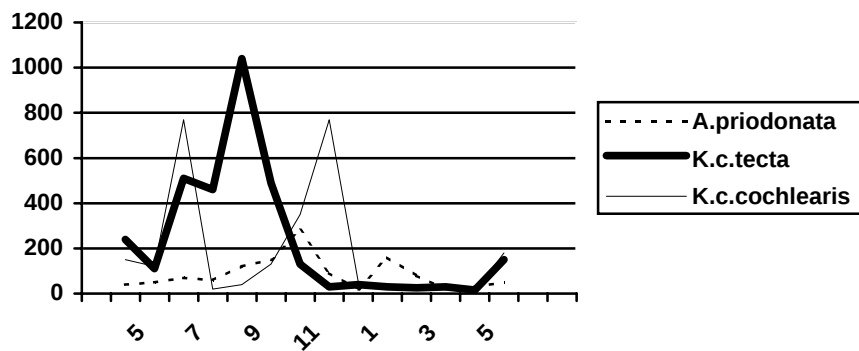
(2)

.K.c.tecta

NH_4^+ Mg/l	NO_3^- Mg/l	NO_2^- Mg/l	PO_4^{+3} Mg/l	SO_4^{-2} Mg/l	PH		/		
0.62	2.3	0.018	0.69	43	9.4	21.3	770	6	<i>K. cochlearis.cochlearis</i>
0.34	1.7	0.016	0.68	35	8.3	19.8	770	11	
0.57	1.6	0.017	0.72	47	9.9	28.8	1040	7	<i>K. cochlearis .tecta</i>

(1)

:



) (1)

.(2003/6 2002/4

K (1 2) cochlearis tecta
Asplanchna priodonata

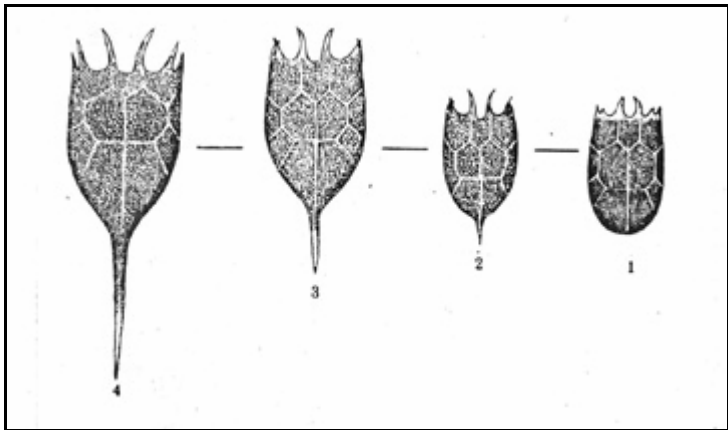
K cochlearis tecta
K cochlearis cochlearis

K cochlearis
Asplanchna priodonata cochlearis
)

(
John J.Gilbert Richard S.Stemberger1984

Richard S.Stemberger1984
John J.Gilbert
()
Asplanchna priodonata
K cochlearis tecta

(4)



K : *K.cochlearis* (4)
K cochlearis cochlearis (3-2-1) *cochlearis tecta*
. (4)

K cochlearis cochlearis
(John J.Gilbert1987 RichardS.Stemberger)

Irena Bielanska-Grajner 1995 *K cochlearis cochlearis*
Rybink

22

(2)
Eurythermic *K cochlearis tecta*

pH

Rotifera -3

Monogononta

Ploimida

Brachionidae (Wesenberg-lund1899)

Brachionus calyciflorus (Rosselet)

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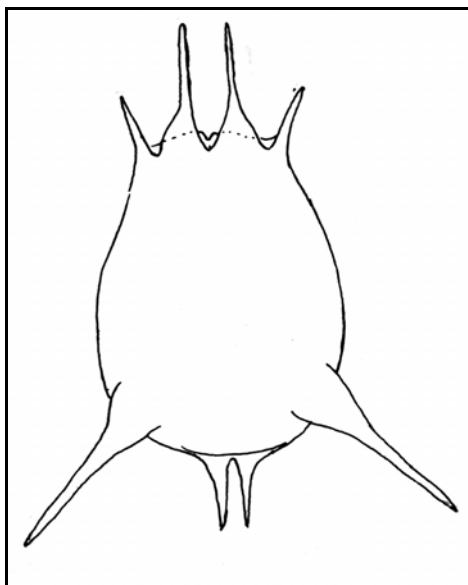
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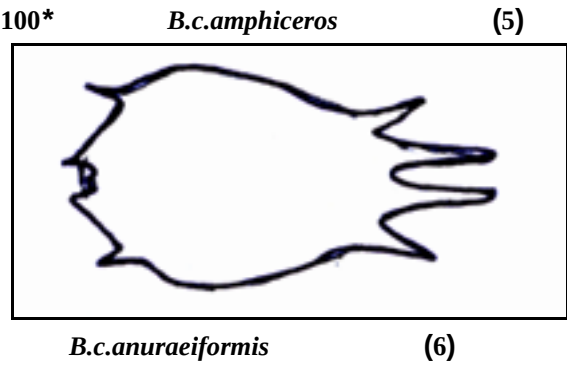
-

(5) *B.c. ampiceros*

:

(6) *B. c. anuraeiformis*





(3)

B.c.amphiceros (3)

<i>B.c.anuraeiformis</i>			
	µm	µm	
µm 42	190	240	<i>B.c.amphiceros</i>
	186	224	<i>B.c.anuraeiformis</i>

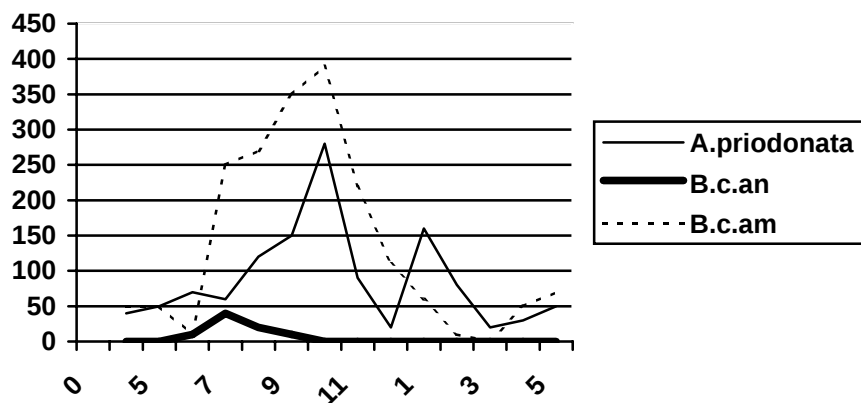
(4)

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B. c. amphiceros (4)

<i>B.c.anuraeiformis</i>									
NH ₄ ⁺ Mg/l	NO ₃ ⁻ Mg/l	NO ₂ ⁻ Mg/l	PO ₄ ⁺³ Mg/l	SO ₄ ⁻² Mg/l	pH Mg/l		/		
52	0.88	2.7	0.016	0.19	9.2	26.3	390	10	<i>B. c. amphiceros</i>
47	0.72	1.6	0.017	0.57	9.9	28.8	15	7	<i>B.c.anuraeiformis</i>

(2)



) (2)

(2003/6 2002/4

B.c.amphicero

(2)

A.priodonata

B.c.anuraeiformis

B.c.amphicero

B.calyciflorus

1967

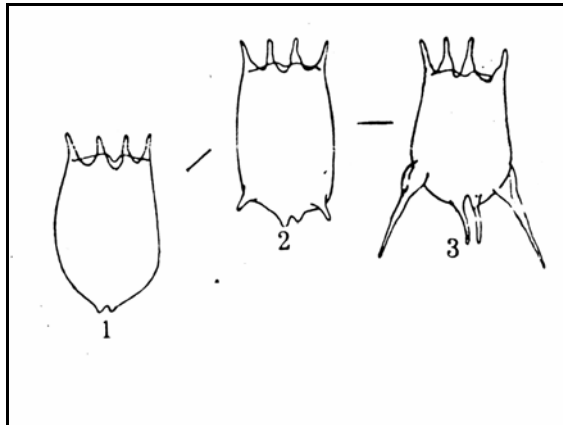
() Millstone

J.K.Waage J.J.Gilbert

A.priodonata

(8)

Brachionus calyciflorus

*Brachionus calyciflorus*

(8)

-1

-2

-3

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- . .20.
- .180. .1997
- . .
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- 37 . (Monogononta,Rotifera)
- .1/6/1997