

Archive of SID

چکیده



)

(

(è)

ÿ

.()

ÿÿ ÿ ÿ

.()

.()

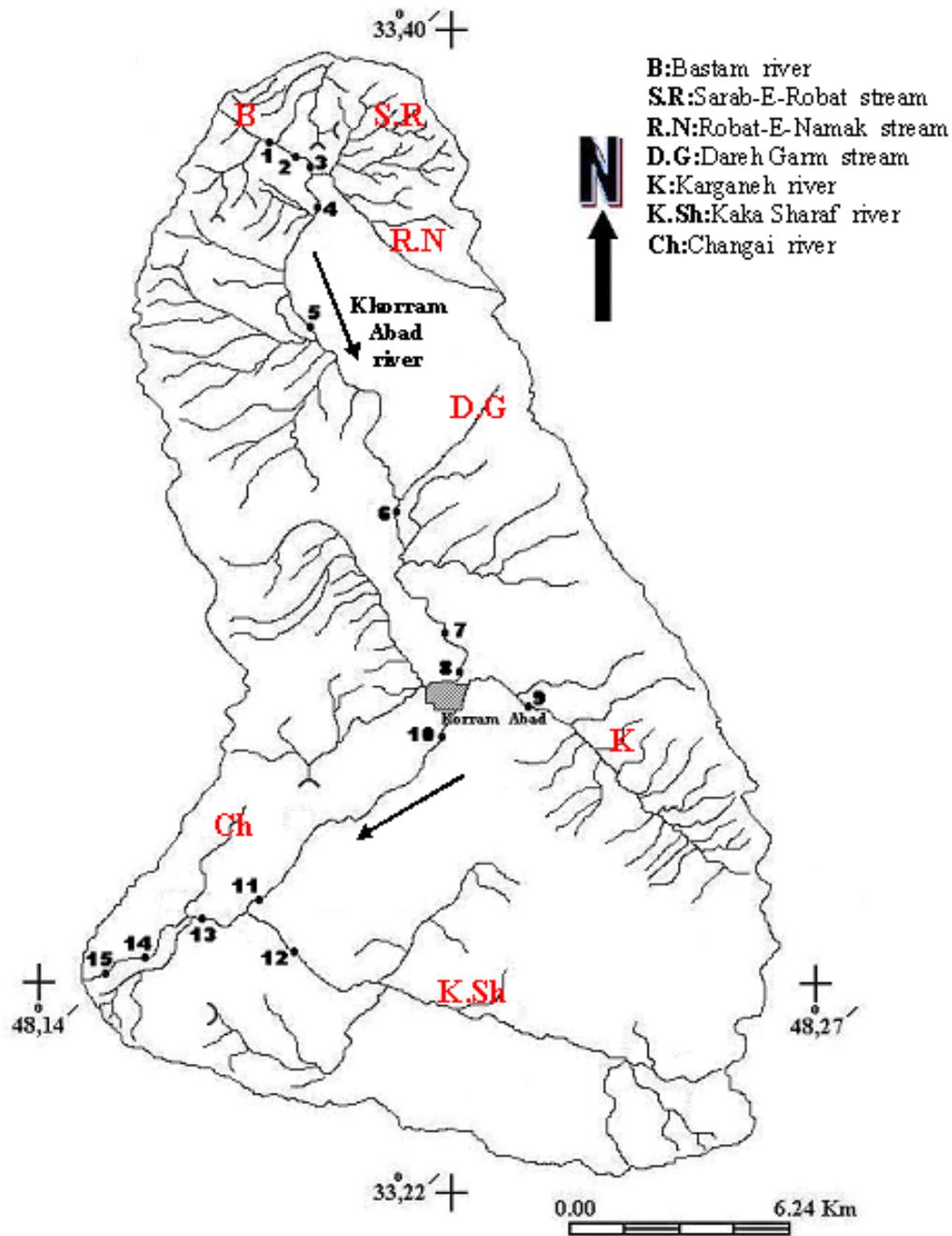
)

(

.()

Archive of SID

Sampling map of Khorram Abad watershed



()



()
()

()			
		F_1	Salmon
		F_2	Trout
		F_3	Salmon
		F_4	Salmon
		F_5	Mullet
		F_6	Salmon
		F_7	Salmon
		F_8	Salmon
		F_9	Spotted mullet
		F_{10}	Spotted mullet
		F_{11}	Mullet
		F_{12}	Salmon
		F_{13}	Salmon
		F_{14}	Salmon
		F_{15}	Mullet

()
()

yy

y

y

y

()

y

y

y

)

(i)

yy

$$T_c = \frac{C \times M_1}{M_1 = D_r}$$

MN

ÿ

= T_c

(i)

= C

= M₁

= D_r

()

(ppm)

()

شماره نمونه	Cr	Fe	Ni	Pb	Zn	Co	Mn
F ₁		î ç	/	-	í	ì/ì	ç/
F ₂	î/ì	ç		ç/ì	î	ç/ì	í/ì
F ₃	ë	í	î	ç/	í/ç/ì	í	ë/ì
F ₄	ë/ì	ö/ì/ì	î	ç/ë	ð/ë		ì
F ₅	ö		î/ì	ç/ì	/ ì		ì/ì
F ₆			ì	ç/ì	/ ì	ç/ì	ë/
F ₇	ì	ö ì/ì	ö	ç/ì	ð/ì	ì	ë/ì
F ₈		ö ç	ì	ç/	ð/ë/		í/
F ₉	ç/ì	í/ì/ì		ç/ì	ç/	ë/ì	ë
F ₁₀	ì	ì	ì	ç/		ö	í
F ₁₁	ë/	ç/ì		ç/ì	ç/ì	ì	ë/ì
F ₁₂	ë/ì/ì	í ç/ì	ç	ç/ì	í	î	ð/ë
F ₁₃	ëç/ì		í/ì	ç/	í ð/ì	ð/ì	ì/
F ₁₄		ö ð/ì	-	ì	í ç/		í
F ₁₅		í/ì	î/ì	ç/ë	ö/ì/ì	ì	í/ì

(ppm)

()

شماره نمونه	Cd	V	As	Hg	Se
F_1	-	ççì	ç	ç ì	ì /
F_2	ì	ççè	ç	ç ì	lð
F_3	è	ççè	-	ç è	/
F_4		çç	ç	-	/
F_5	è	-	ç	ç	/
F_6	ì	çç	-	ç	/
F_7	ì	çç	/	ç	ì /
F_8		ççè	ç	ç	ì /
F_9		ççì	çè	ç	ì / ì
F_{10}	ì	çç	-	-	è /
F_{11}	è	çç	ç	ç ì	/
F_{12}		çç	/	ç è	ì /
F_{13}	èì	çç	/	ç	lð
F_{14}	ì	çç	çì	ç è	/
F_{15}		çç	çì	ç ì	è /



(ppm)

()

	<i>Li</i>	<i>K</i>	<i>Na</i>
<i>F₁</i>	-	çç	ì/ì
<i>F₂</i>	-	ççí	ë
<i>F₃</i>	-	çç	
<i>F₄</i>	-	ççí	ç
<i>F₅</i>	-	çç	ë/ì
<i>F₆</i>	-	çç	
<i>F₇</i>	-	ççí	ì
<i>F₈</i>	-	-	
<i>F₉</i>	-	ç	ë
<i>F₁₀</i>	-	çç	
<i>F₁₁</i>	-	ççí	ç
<i>F₁₂</i>	-	çç	ç/ì
<i>F₁₃</i>	-	ççë	ë
<i>F₁₄</i>	-	ççí	ì
<i>F₁₅</i>	-	ç/ì	ë

Archive of SID

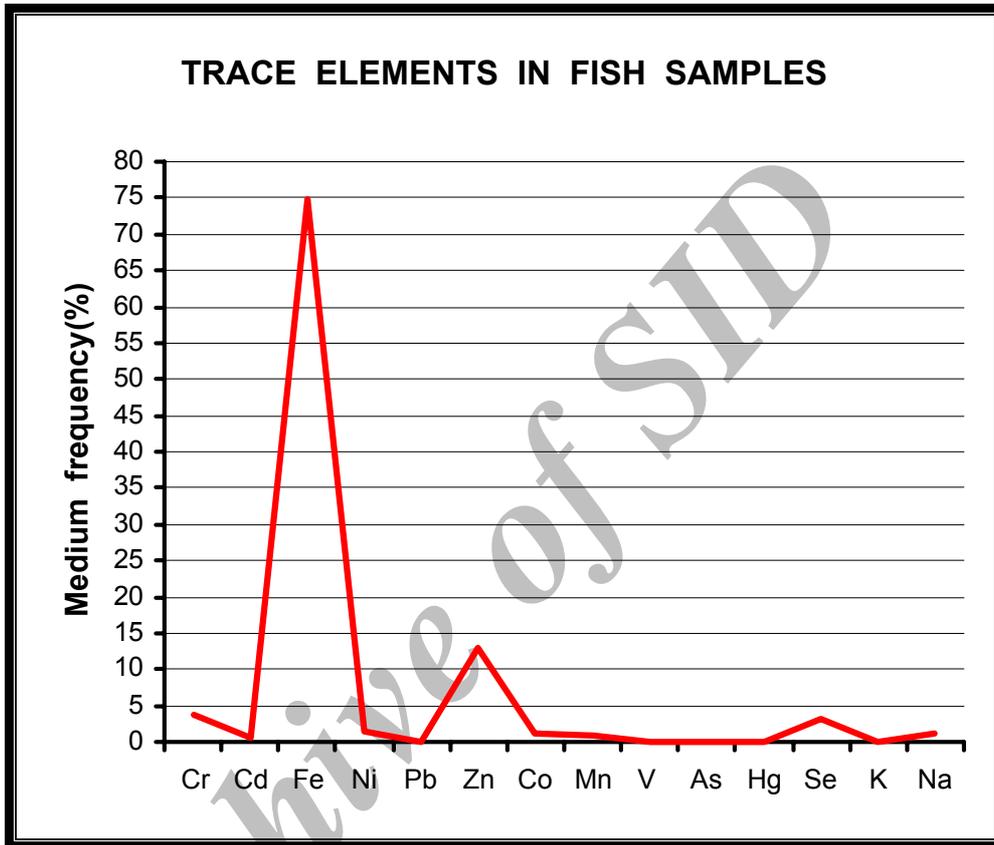
()



()

)

(



()

Archive of SID



Tate Heiny

(.)

(i)

(.)ppm

:

(ç)	(ç)
(ç)	(ç)
(ç!)	(ç)
(ç)	(ç)
()	(ç)
Lead(0.1)	(ç!)

(. ð)

:

()

ÿ

ð

ç

)

(. F₉)

(.

)

Reference

1. Schmitt, C.J., and Brumbaugh, W.G., 2000, National Contaminant Biomonitoring Program-Concentrations of arsenic, cadmium, copper, Lead, Mercury, selenium, and zinc in the U.S.freshwater fish, 1976-1984:Archives of Environmental Contamination (north of America) and Toxicology.,V.19, No.5, p.731-747.
2. Davies, B.E., 1983, In: Applied Environmental geochemistry (Ed.I.Thornton), Academic Press, London., p.426-428.
3. Stumm, W., 1977, Global Geochemical Cycles and they're Alteration by Man. Heyden & Son, Inc., Philadelphia, and 347p.
4. Timme, P.J., 1995,National Water Quality Laboratory 1995 services catalog:U.S.Geological Survey Open-File Report 95-352, 120p.
5. Carter, L.F., 1997,Water-Quality Assessment of the Rio Grande Valley, Colorado, New Mexico, and Texas-Organic compounds and trace elements in bed sediment and fish tissue, 1992-93:U.S.Geological Survey Water-Resources Investigations Report 97-4002, 23p.
6. Heiny, J.S., and Tate, C.M., 2003, Concentration, distribution, and comparison of selected trace elements in fish tissue in the South Platte River Basin: Journal of Archives of Environmental Contamination and Toxicology, V.32, No.3, p. 246-259.
7. Crawford, J.K., and Luoma, S.N., 1993, Guidelines for studies of contaminants in biological tissues for the National Water-Quality Assessment Program: U.S. Geological Survey Open-File Report 92-494, 69p.