TAXONOMICAL AND ECOLOGICAL STUDIES ON SOME WORMS (TURBELLARIA AND NEMERTINEA) FROM FRESHWATER HABITATS IN EGYPT

A THESIS SUBMITTED

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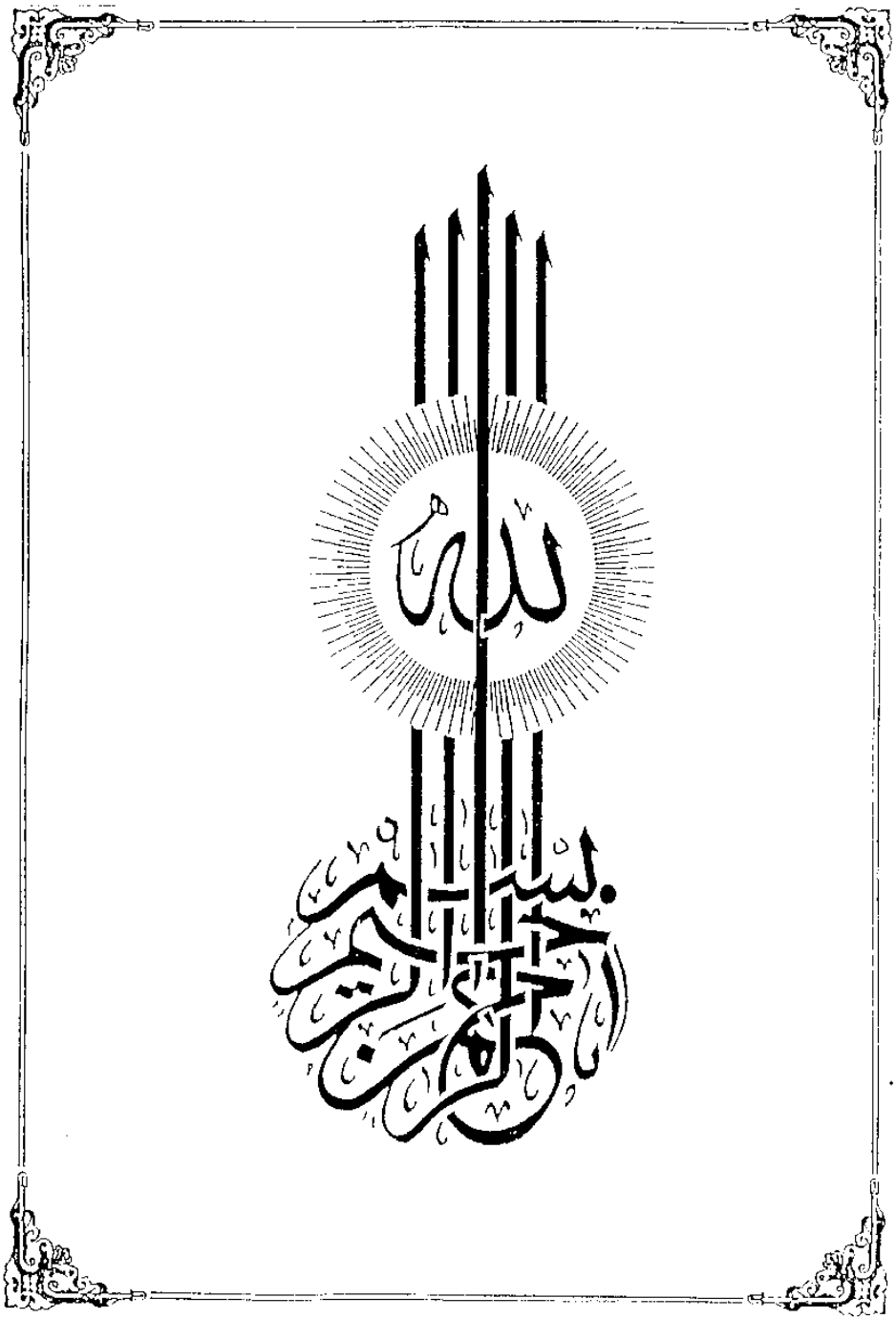

The student has successfully passed the examinations of the following required postgraduate courses:

1- Taxonomy.
2- Protozoa.
3- Biological Relationships.
4- Malacology.
5- English Language.

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ABSTRACT

Freshwater invertebrates have a great economic importance. Taxonomical and ecological studies on the Egyptian freshwater invertebrate fauna are insufficient and covers only too limited parts of the taxa. The present work deals with taxonomical and biological investigations of five freshwater turbellarians and a nemertine worm that were obtained from three different freshwater habitat namely Shebin El-Kanater canal, Ismailia canal and El-Gamaa bridge near Cairo, Egypt. Besides some ecological observations on the recorded species including chemical analysis of the water from the above sites. The obtained species were examined from whole mounts and serial sections, described morphologically and identified. These species can be listed as follows:-

1- ***Macrostomum ismailiensis n. sp.***

2- ***Macrostomum riedli n. sp.***

3- ***Macrostomum beltagii n. sp.***

4- ***Mesostoma shebiniensis n. sp.***

5- ***Marinellia aeegyptiaca n. gen. n.sp.***

6- ***Prostoma africanus n. sp.***

Key Words

Invertebrates - Freshwater - Taxonomy - Turbellaria - Nemertinea - Ecology - Fauna - Chemical analysis.

LIST OF ABBREVIATIONS

ac	:	accessory cell
acg	:	accessory gland
acst	:	accessory stylet
add	:	adhesive disc
af	:	antrum femininum
agc	:	adhesive gland cell
an	:	anus
anf	:	annular muscle fibre
argc	:	adenal rhabdite gland cell
b	:	basis
bc	:	bursa copulatrix
bcc	:	bacillary cell
bg	:	basal granule
bl	:	basal lamina
bs	:	basis sheath
c	:	cilia
cepc	:	cubical epithelial cell
cg	:	cephalic gland
cl	:	cephalic lacuna
cm	:	circular muscle
cod	:	common oviduct
cpr	:	circumpharyngeal ring
cr	:	crustacean
cst	:	central stylet
cvid	:	common vitelline duct

cyg	:	cyanophilic granule
cygc	:	cyanophilic gland cell
dc	:	ductus communis
dep	:	dorsal epithelium
dest	:	distal end of the stylet
di	:	ductus intervesicularis
dilm	:	dilator muscle
dimf	:	diagonal muscle fibre
dmn	:	dorso-median nerve
dvmf	:	dorso-ventral muscle fibre
e	:	eye
ec	:	eye cup
ejd	:	ejaculatory duct
eng	:	enzymatic gland
ep	:	epithelium
ept	:	epithelial tube
epw	:	epithelial wall
esg	:	eosinophilic granule
esgc	:	eosinophilic gland cell
exb	:	excretory beaker
fe	:	fertilized egg
fep	:	flattened epithelium
fga	:	female genital aperture
fs	:	false seminalis
fsp	:	foreign sperm
fwac	:	free wandering amoebocytes
ga	:	genital atrium

gc	:	gland cell
go (gp)	:	gonopore (genetal pore).
ic	:	intercillary cell
icm	:	inner circular muscle
ilm	:	inner longitudinal muscle
in	:	intestine
inc	:	intestinal caecum
inep	:	intestinal epithelium
inl	:	intestinal lumen
ladn	:	left antero-dorsal nerve
laldn	:	left antero latero-dorsal nerve
lalns	:	left antero-lateral nerve stem
lans	:	left anterior nerve stem
lbv	:	left blood vessel
ldnc	:	left dorsal nerve cord
lexd	:	left excretory duct
llb	:	left lobe
llln	:	left latero-longitudinal nerve
llnc	:	left lateral nerve cord
llns	:	left lateral nerve stem
llvn	:	left latero-ventral nerve
lm	:	longitudinal muscle
lnc	:	left nerve connective
lod	:	left oviduct
lov	:	left ovary
lsp	:	left sensory pit
lt	:	left testis

ltexc	:	left transverse excretory canal
lv	:	left vitellarium
lvd	:	left vas deferens
lvid	:	left vitelline duct
lvn	:	left ventral nerve
lvnc	:	left ventral nerve cord
lvns	:	left ventral nerve stem
m	:	mouth
mdc	:	medio-dorsal commissure
me	:	membrane
mga	:	male genital aperture
mgc	:	mucous gland cell
mov	:	mature ovum
mv	:	medial vessel
n	:	nucleus
ng	:	nerve ganglion
ocm	:	outer circular muscle
od	:	oviduct
oe	:	oesophagus
olm	:	outer longitudinal muscle
omf	:	oblique muscle fibre
oo	:	oogonium
ovc	:	ovocyte
pc	:	passage cell
pec	:	polygonal epithelial cell
ph	:	pharynx
phc	:	pharyngeal cyanophilic

phg	:	phagocytic gland
phs	:	pharyngeal sac
pht	:	pharyngeal tube
pi	:	pigment
plc	:	penial canal
pr	:	proboscis
prm	:	protractor muscle fibre
pest	:	proximal end of the stylet
prp	:	proboscis pore
pt	:	parenchymatous tissue
r	:	rhabdite
radn	:	right antero-dorsal nerve
raldn	:	right antero latero-dorsal nerve
ralns	:	right antero latero-dorsal nerve stem
rans	:	right anterior nerve stem
rbv	:	right blood vessel
rc	:	rhynchocoel
rd	:	rhynchodaeum
rdnc	:	right dorsal nerve cord
rem	:	retractor muscle
rexd	:	right excretory duct
rgc	:	rhabdites gland cell
rh	:	rhammite
rlb	:	right lobe
rlln	:	right latero-longitudinal nerve
rlnc	:	right lateral nerve cord

rlns	:	right lateral nerve stem
rlvn	:	right latero-ventral nerve
rmf	:	radial muscle fibres
rnc	:	right nerve connective
rod	:	right oviduct
rov	:	right ovary
rs	:	receptaculum seminis
rsp	:	right sensory pit
rss	:	resreve stylet sac
rt	:	right testis
rtexc	:	right transverse excretory canal
rv	:	right vitellarium
rvd	:	right vas deferens
rvid	:	right vitelline duct
rvn	:	right ventral nerve
rvnc	:	right ventral nerve cord
rvns	:	right ventral nerve stem
sc	:	serous cell
sg	:	shell gland
sh	:	stylet shaft
sm	:	sphincter muscle
sp	:	sperm
spc	:	spermatogenesis cell
st	:	stylet
sto	:	stomach
te	:	testis
tng	:	tail nerve ganglion

ut	:	uterus
va	:	vagina
vd	:	vas deferens
vep	:	ventral epithelium
vg	:	vesicula granulorum
vs	:	vesicula seminalis
yc	:	yolk cell
zg	:	zygote

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