

VII. REFERENCES

- 1- Al-Adhami , M. A. & Kunz, Y. W. (1976) :

Haemopoietic centers in the developing angelfish , *Pterophyllum scalare* (Curier and Valenciennes).Wilhel. Roux's Archives,179;393-405

- 2-Al-Adhami , M. A. & Kunz , Y. W. (1977) :

Ontogenesis of haematopoietic sites in *Brachydanio rerio* (Hamilton - Buchanan) (Teleostei).Devel. Growth and Differentiation , 19 ; 171-179 .

- 3 -Alink , G. M. ; Frederix - Wolters , F. M. H. ; Van der Gaage , M. A. ; Van der Kerkhoff , J. F. J. & Poels, C. L. M. (1980) :

Induction of Sister -Chromatid Exchanges in fish exposed to Rhine water. Mutat . Res , 78 ' 369 -380

- 4- Al- Sabti , K. (1985) :

Frequency of chromosomal aberrations in the rainbow trout , *Salmo gairdneri* Rich , exposed to Five pollutants . J. Fish Biol . ,26; 13-19 .

- 5- Al- Sabti , K. ; Fijan , N. & Kurelec , B. (1984) :

Frequency of Chromosomal aberrations in the rainbow trout (*Salmo gairdneri* . Rich .) exposed to detergent and benzene . Vet arh, 54 ; 83-89 .

- 6- Al-Zahaby , A. S. ; Y. S. El - Assy & G. A. Said - Ahmed (1985) :
Comparative morphological and histological studies of the kidneys of fresh - water teleost *Cyprinus carpio* and marine teteost *Morone labrax* . Proc . zool . Soc . A. R. E. , Egypt , 9 ; 211-222 .
 - 7- Amlacher , E. (1954) :
Beitrag Zur Anatomic der karpfenleber (*Cyprinus carpio* L .) . Z. Fisch , N. F. ,3 ; 311-336 .
 - 8- Andrianova , M. M. & Alekseev , I. V. (1970) :
Carcinogenic properties of pesticides Sevin , Maneb , Ziram and Zineb . Vop. Pilan ,29 ; 71-79 .
 - 9- Armstrong , P. B. (1932) :
The embryonic origin function in the pronephros . Am . J. Anat . , 51; 157-188 .
 - 10- Audige , J. (1910) :
Contribution a l' etude des reins des poissons teleosteens . Arch . Zool . Exp . et Gen , Ser . , 5 , T.4; 474-624 .
 - 11 -Balfour , F. M. (1882) :
On the nature of the organ in adult teleosteans and ganoids , which is usually regarded as the head kidney or pronephros . Quart . J. Micr . Sci . N. S. Vol.,30; 12-16 .
-

12- Barker , C. J. & Rackham , B. D. (1979) :

The induction of Sister - Chromatid Exchanges in cultured fish cells (*Ameia splendens*) by carcinogenic mutagens . Mutat . Res ., 68 ;381-387 .

13- Beder, M. A. A. (1983) :

Anatomical , Histological and Histochemical studies on the kidney of one marine fish (*Chrysophris aurata*) and some fresh - water fishes (*Clarias lazera*) and (*Ctenopharyngodon idellus*) . M.Sc. thesis , Fac. Sci. , Suez Canal Univ. Ism ., Egypt.

14- Beitch , T. (1962) :

A histomorphological comparison of the urinary system in serranid fishes . *Roccus saxatilis* and *Rocuss americanus* . Master's thesis . University of Richmond , Richmond , Virginia , U. S. A.

15- Beitch , T. (1963) :

Striped bass histo- morphological study . Virginia Comission of Game and Intand Fisheries , Fedral Aid in Fish Restoration , F-5- R- 8 Warmwater Fisheries Management , Job II , Final Report , Richmond , Virginia , U. S. A.

16- Bhattacharyya , T. K. & D. G. Butter (1978) :

Fine structure of corpuscles of Stannius in the Toadfish . J. Morphology . ,155 , No. 3; 271-286 .

17- Bhattacharyya , T. , Ray , A. K. & Bhattacharya , S. (1985) :

Response of *Channa punctatus* (Bloch) under short and long term exposure to industrial pollutants : Induction of histo- pathology in the kidney . Z. mikrosk . - anat . Forsch. , Leipzig ,99 ; 2, S. ; 327-334.

18- Bielek , E. (1974) :

Die Entwicklung der Niere von Asche , *Thymallus thymallus* L. und Hecht , *Esox lucius* L. Zool. Jb . Anat ., 92; 163 -180.

19- Blevins , R. D. , Lee , M. & Regan . J. D. (1977 a) :

Mutagenicity screening of five methyl carbamate insecticides and their nitroso derivatives using mutants of *Salmonella typhimurium* L. T. Mutat . Res. ,56 .; 1-11

20- Blevins , R. D. , Lijinsky , W. & Regan , J. D. (1977 b) :

Nitrosated methyl carbamate insecticides : Effects on the DNA of human cells . Mutat. Res., 44 ; 1-9 .

- 21- Boseila, A.W. ; El-Refaei , F. E. , Mattar & N. M. Farid (1979) :

Effect of the insecticide " Carbaryl " on the ovarian structure of white rat .Proc . Egypt . Soc . Histol. Dec. 1979 . Egypt . J. Histol. ,2 ; 1979 .

- 22- Breitig , G. (1966) :

Zur . Notwendigkeit der standarisierung von Toxicitatesteten . Verh . Int. Ver. Limnol., 16 ; 979-984 .

- 23- Bryant , C. P. (1970) :

The morphology of the renal systems of the striped bass *Roccus saxatilis* (Walbaum) . Anatomical Record , 166; 284-295 .

- 24- Bryant , C. P. & Seibel, H. R. (1970) :

Histological and ultrastructural aspects of the pronephric phase of renal development in the larval striped bass *Roccus saxatilis* . Virginia Journal of Science , 21; 143-152 .

- 25- Bryant , C. P. & Seibel, H. R. (1971) :

Ultrastructural investigation of tubulogenesis in the mesonephros of the striped bass. Anatomical Record ., 169; 285-295 .

- 26- Buck , D. H.; Baur , R. J. & Rose , C. B. (1975) :

Comparison of the effects of grass carp and the herbicide diuron in densely vegetated pools containing golden shiners and bluegills . Prog. Fish - cult ., 37 ;185-190 .

- 27- Buckley , L. J. (1977) :

Biochemical changes during ontogenesis of the winter flounder (*pseudopleuronectes americanus*) and the effect of starvation I. C. E. S. C. M. L. 29 ; 10-18.

- 28- Bulger , R. E. & Trump ,B.F.(1968) :

Renal Morphology of the English Sole (*Paraphrys Vetulus*) . Amer . J. Anat. ,123 ; 195-226 .

- 29- Bulow , F. J. (1970) :

RNA - DNA ratios as indicators of recent growth rates of a Fish . J. Fish . Res. Bd. can ., 27 ; 2343-2349 .

- 30- Bulow , F. J. (1971) :

Selection of suitable tissues for use in the RNA - DNA ratio technique of assessing recent growth rate of a fish . *Iowa st. J. Sci.* ,46; 71-78 .

- 31- Bulow , F. J. ; Zeman ,M. E. , Winningham , J. R. & Hudson , W. F. (1981) :

Seasonal variations in RNA - DNA ratios and in indicators of feeding , reproduction energy storage , and condition in a population of bluegill , *Lepomis macrochirus* , Rafinesque . J. Fish Biol., 18; 237-244 .

- 32- Capreol , S. V. & Sutherland , L. E. (1968) :

Comparative morphology of juxtaglomerular cells . I. Juxtaglomerular cells in Fish . Can . J. Zool. ,46;249 -256.

- 33- Catton , W. T. (1951) :

Blood cell formation in certain teleost fishes . Blood , 6 ; 39-60 .

- 34- Chiller , J. M. , Hodgins , H. D. , Chambers , V. C & Weiser , R. S. (1969) :

Antibody response in rainbow trout (*Salmo gairdneri*).I.Immunocompetent cells in the spleen and anterior kidney. J. Immunol.,102; 1193-1200 .

- 35- Chin , B. H. ; Eldridge . J. M. ; Anderson . J. & Sullivan .L. J. (1979) :

J. Agric . Food chemi. in press . Cited by klaverkamp & Hobden (1980) .

- 36- Chin , B. H. Eldridge , J. M. & Sullivan , L. J. (1974) :
Clin . Toxicol . ,7 ; 37 , Cited by klaverkamp & Hobden (1980) .
 - 37- Coppage , D. L. (1971) :
Characterization of fish brain acetylcholinesterase with an automated pH stat for inhibition studies .
Bull . Environ . Contam . Toxicol . ,6 ; 304-310 .
 - 38- Coppage , D. L. (1972) :
Organophosphate pesticides : Specific level of brain AchE inhibition related to death to sheepshead minnows . Trans . Am. Fish Soc . , 101 ; 334-536 .
 - 39- Coppage , D. L. (1976) :
River pollution by anticholinesterase agents water Res. ,10 ; 19-24 .
 - 40- Coppage , D. L. & Matthews . E. (1975) :
Brain acetylcholinesterase inhibition in a marine teleost during lethal and sublethal exposures to 1, 2 - dibromo - 2, 2- dichloro - ethyl dimethyl phosphate (Naled) in seawater . Toxicol . Appl pharmacol . , 31 ; 128-133 .
-

- 41- Coppage , D. L. & Matthews . E. ; Cook , G. H. & Knight J. (1975) :

Brain AchE inhibition in fish as a diagnosis of environmental poisoning by malathion 0,0 - dimethyl S- (1,2-dicarbethoxyethyl) Phosphorodithioat . Pestic . Biochem .Physiol., 5; 536-542 .

- 42- Davies , H. G. & Haynes , M. E. (1975) :

Light and electron microscope observations on certain leucocytes in a teleost fish and a comparison of the envelopelimited monolayer chromatin structural units in different species . J. Cell Sci. ,17; 263 -274.

- 43- Dawson , A. B. (1935) :

The hemopiotic response in the catfish , *Ameiurus nebulosus* , to chronic lead poisoning . Biol . Bull ., 68 ; 335 -344.

- 44- Dean , B. (1895) :

The early development of Garpike and sturgeon . J. Morph . ,11; 1 -62.

- 45- Downey , H. (1938) :

Handbook of Haematology . New York , Hoeber .

- 46- Drewett , N. & Abel . P. D. (1983) :

Pathology of lindane poisoning and of hypoxia in the Brown trout , *Salmo trutta* . J. Fish Biol . ,23 (4) ; 373 -384.

- 47- Drury, R.A. B.& Wallington,E. A. (1980) :

Carlton's Histological technique .5th.ed. Oxford University press1-520.

- 48- Duangsawasdi , M. & Klaverkamp , J . F . (1979) :

Acephate and fenitrothion toxicity in rainbow trout : Effects of temperature , stress and investigations on the sites of action . In: Aquatic toxicology , ASTM STP, 667 , edited by L.L. Marking & R. A. Kimerle , Amm. Soc. for Testing and Materials , 35 -51.

- 49- Dubber , F. A. A. ; Ghoneim , S. ; Siemelink , M. E.; Gharably , Z. Pieterse , A. H. & Blom , J. E. (1978) :

Aquatic weed control in irrigation chanel and drainages in Egypt by means of grass carp (*Ctenopharyngoden idella*) . Proc . Int . Symp. Biol. Center . Weeds . Brisbane (Australia): 261 -271.

- 50- Dutta , S. K. (1923) :

On a peculiar disposition of the liver and kidney in the fish genera . J. and pros . Asiat. Soc. Bengal . , 19; 111-120.

51- Eisler , R. (1970) :

Factors affecting pesticide induced toxicity in an Estuarine Fish . U. S. Depart. Interior , Bur . Sport. Fish . Wildl . Tech. ,45; 20-31 .

52- El-Gharably , Z.; Tolba, A.; Piterse , A. H. & Druyff, A. H. (1978) :

Preliminary experiments with grass carp for the control of aquatic in Egypt . Proc E. W. R. C. Symp. on weeds : 369 - 374 , Amesterdam , The Netherland .

53- El-Gharably , Z.; Khattab, A. F. & Dubber , F. A. A. (1982) :

Experience with grass carp for the control of aquatic weeds in irrigation canals and drains in Egypt . Proc. 2nd Int . Herb. Fish Novisad (Yugoslavia) 17-26.

54- Elias , H. & Bengelsdorf, H. (1952) :

The structure of the liver of vertebrates . Acta Anat . ,14 ; 297-337.

55- Ellis , A. E. (1977) :

Ontogeng of the immune response in *Salmo salar* . Histogenesis of the lymphoid organs and appearance of membrane immunoglobulin and mixed leucoyte reactivity . In Developmental Immunobiology . Eds. J. B. Solomon and J. D. Horton . Elsevier / North Holland Biochemical press. 225 -231.

56- Ellis , A. E. & de Sousa , M. (1974) :

Phylogeny of the lymphoid system . I. A study of the fate of circulating lymphocytes in plaice . Eur . J. Immunol. ,4 ; 338-351 .

57- Evans , H. J. (1977) :

Molecular mechanisms in the induction of chromosomal aberrations . In progress in Genetic Toxicology (D. scott , B. A. Bridges & F. H. Sobels , eds) 57 - 74 . Amsterdam . Elsevier / North Holland .

58- Fange , R. & Grove , D. (1979) :

Digestion . (162 - 241) in W. S. Hoar, D. J. Randall and J. R. Brett, editors . Fish physiology , volume 8 Acad press. New York , New York , U. S. A.

59- Felix , W. (1906) :

Die Entwicklung des Harnapparates- In O. Hertwigs Hb . d. Vergl . Und exp. Entwicklungslehre der Tiere . 3 Bd . I. Jena .81-422.

60- Fischer , Z. & V. P. Lyakhnovich (1973) :

Biology and bioenergetics of grass carp (*Ctenopharyngodon idella* val.) Pol. Arch . Hydrobiol .,20 ; 309-318 .

66- Haines , T. A. (1973) :

An evaluation of RNA - DNA ratio as a measure of long - term growth in fish populations . J. Fish . Res. Bd can. ,30;195-199 .

67- Haines , T. A. (1980) :

Seasonal patterns of muscle RNA - DNA ratio and growth in black crappie , *Pomoxis nigromaculatus* . Environ . Biol. Fishes , 5 ; 67-70 .

68- Harder , W. (1975) :

Anatomy of fishes . E. Schweizerbartsche Vertagsbuchandlung (Nagel V. obermiller) , Stuttgart , West Germany .

69- Hayes , W. J. Jr. (1975) :

Toxicology of pesticides . The Williams & Wilkins , Baltimore .

70- Haynes , H. I. (1957) :

Carbaryl insecticide .Cited by Boyce Thompson (1957) 18; 507-547 .

71- Hickman , C. P. J. , & B. F. Trump (1969) :

The kidney , pp. 91 . 240 In W. S. Hoar & D. J. Randall (ed.) Fish physiology ; Vol. . 1. Academic Press, New York. 3rd. edition .

- 72- Hinton , D. E. ; Snipes , R. L. & Kendall, M. W. (1972) :
Morphology and enzyme histochemistry in the
liver of largemouth bass (*Micropterus salmoides*)
J. Fish Res. Board . Can . 29 : 531-534 .
- 73- Holland , H. T. ; Coppage D. L. & Butler , P. A. (1967) :
Use of fish brain acetylcholinesterase to monitor
pollution by organophosphorous pesticides . Bull.
Environ . contam . Toxicol., 2;156-162 .
- 74- Holmes , S. B. , Millikin R. L. & Kingsburg , P. D. (1981) :
Env . Can. , can . For . Serv. ,Inf. Rep. EPM-X- 46;
58-69.
- 75- Hooli , M. A. & Nadkarni ,V. B.(1962) :
Urinogenital system in some teleosts . Proc. All
India Congr. Zool. ,2; 194 -204.
- 76- Hora , S. L. (1937) :
Correlation between the disposition of liver and
kidney and form of the air bladder in certain
Siluroid Fishes of India . Proc. Nat. Inst . Sci.
India ., 3; 3-43 .
- 77- Huot , A. (1902) :
Recherches sur les poissons lophobranches . Ann .
d. Sci. Nat. (zool. et pateont). 8t ,14;197 -288.
-

78- Hurwitz , J. & August , T. J. (1963) :

The role of DNA in RNA synthesis . In : Progress in nucleic acid research and molecular biology . Davidson , J. N. and W. E. Cohn eds . Vol. 1 : 59 - 92 . Acad . Press., N. Y. London .

79- Inaba , D. M.; Nomura & M. Nakamura (1957) :

Preliminary report on the spawning of grass carp and silver carp in the Tone River , Japan , and the development of their aggs . J. Tokyo Univ. Fish . 43 : 81-107.

80- Joshi , U. M. & Desai, A . K. (1988) :

Biochemical changes in the livers of fish, *Tilapia mossambica* (Peters) , during continuous exposure to Monocrotophos . Ecotoxicol . Environm . SaF ., 15; 272-276 .

81- Kawatsu , H. (1977) :

Studies on the anemia of fish part 8 Hemorrhagic anemia of carp caused by a herbicide Molinate . Bull . JPN . Soc . Sci Fish ., 43 (8); 905 -912.

82- Kearns , P. K. & , Atchison , G. J. (1979) :

Effects of trace metals on growth of yellow perch (*Perca flavescens*) as measured by RNA - DNA ratios . Environ . Biol. Fishes ., 4 ; 383 -387.

- 83- Kendall , M. W. & Hawkins , W. E. (1975) :

Hepatic morphology in the channel catfish
(*Ictalurus punctatus*) kidney . J. Fish . Res.
Board . Can, 31 ; 346-347 .

- 84- Khalil , R. M. (1979) :

Histological studies on the kidneys of the red sea
Syngnathiforms fishes. Bull. Egypt ., 29;28-36 .

- 85- Khattab ,A. F. ; El-Gharably , Z. & Dubber , F. A. A. (1981) :

The grass carp , a future alternative for control of
aquatic weeds in the A. R. E. Proc . 4 th Afro-
Asian Reg. Conf. ICID , Lagos (Nigeria) , Vol. II ;
215-26 .

- 86- Klaverkamp , J. F.; Duangsawasdi . M.; Macdonald , W. A. &
Majewski , H. S. (1977) :

An evaluation of finitrothion toxicity in four life
stages of rainbow trout , *Salmo gairdneri* . In
Aquatic tixicology and hazard evaluation . ASTM
STP 634 , edited by F. L. Mayer & J. L. Hamelink ,
Amm. Soc. for Testing and Materials ; 231-240 .

- 87- Klaverkamp , J. F.; & Hobden , B. R. (1980) :

Brain acetylcholinesterase inhibition and hepatic
activation of acephate and fenitrothion in
rainbow trout (*Salmo gairdneri*) . Can. J. Fish .
Aquat . Sci ., 37; 1450 -1453

88- Kligerman , A. D. (1979) :

Induction of Sister - Chromatid Exchanges in the central mudminnow following in vivo exposure to mutagenic agents . Mutat . Res., 64; 205 -217.

89- Kligerman , A. D. , Bloom , S. E. (1976) :

Sister chromatid differentiation and exchanges in adult mudminnows (*Umbra limi*) after in vivo exposure to 5 - bromodeoxyuridine . Chromosoma (Berl .) ,56; 101-109 .

90- Kligerman , A. D. , Bloom , S. E. & Howell , W. M. (1975) :

Umbra limi : A model for the study of chromosome aberrations in fishes . Mutat . Res., 31 ; 225 -233.

91- Knaak , J. B. (1971) :

Bull. World Health org . 44 . ; Cited by coppage & Matthews (1975)

92- Kolaczowski , S. (1970) :

Zagrozenie srodowiska wodnego pestycydami (Pesticides as a menace for aquatic mileu) . Maler . Sesji " Wplyw pestycydow na wody powierzchniowe . " , Krakow 1970 , 7- 32, Warszawa , Pol . Akad . Nauk, Komitet Ekologiczny .

93- Konig , D. (1964) :

Gewasserkundlich biologische Bemerkung zur Grabenentkrautung mit chemischen Mitteln .
Wass . Boden , 10 ; 345-349 .

94- Kristal , J. (1946) :

The exocrine pancreatic tissue of seven teleosts .
South African Journal of Medicial Sceinces,
11; 79 -87.

95- Kuronuma , K. (1968) :

New system and new fishes for culture in the far East . In pillay , T.V. R. (ed.) 1968 . FAO Fisheries Reports No. 44 , 5;123 -142.

96- Labat , R. Larrouy , G. & Malaspina , L. (1967) :

Technique de culture des leucocytes de Cyprinus carpio L. C. R. Acad. Sc. Paris., 264 ; 2473 -2475.

97- Landolt , M. L. & Kocan , R. M. (1983) :

Fish cell cytogenetics : A mesure of the genotoxic effects of environmental pollutants . In Aquatic Toxicology (J. O. Nriagu, ed.) , 335 - 352 . John Wiley & Sons Inc.

98- Lejczak , B. (1977) :

Effect of insecticides : Chlorophenvinphos ,
Carbaryl and propoxur on aquatic organisms .
Pol. Arch. Hydrobiol. , 24 ; 583 -591.

99- Lijinsky , W. & Elespuru , R. K. (1976) :

Mutagenicity and carcinogenicity of N- nitroso
derivatives of carbamate insecticides . IARC Sci ,
14 ; 425 -346.

100- Marshall, W. K. Jr. (1934) :

The comparative physiology of the kidney in
relation to theories of renal secretion . Physiol.
Rev. ,14 ; 133-159 .

101- Marshall, W. K. Jr. & Smith , H. W. (1930) :

The glomerular development of vertebrate
kidney in relation to habitat .*Biol. Bull.*, 59; 135-153.

102- Mattar , F. E. , Farid , N. M. & Ragab , A. F. (1981) :

A histochemical study on the ovaries of rat
treated with an insecticide "Carbaryl " Egypt . J.
Histol., 4 (1) ; 87 -92.

103- Matthey , R. (1956) :

Cytologie chromosomique comparee et
Systematique des Muridae , Mammalia , 20;93-123 .

- 104- Miller , E. C. & Miller, J. A. (1971) :

Chemical Mutagens (Ed. A. Hollaender) plenum Press. 1 -83.

- 105- Milton , T. S. & Tsokos , J. O. (1983) :

Statistical methods in the biological and health sciences . Chapter 12 , P.381 - 405. Mcgraw - Will. Internatunal Book Company .

- 106- Mustafa , S. (1977) :

Influence of maturation on the concentration of RNA and DNA in the flesh of the catfish , *Clarius batrachus* , Trans . Am. Fish . Soc ., 106; 449-451 .

- 107- Neidhardt , F. C. & Magasanik , B. (1960) :

Studies on the role of ribonucleic acid in the growth of bacteria . Biochem. Biophys . Acta, 42;99-166.

- 108- Newstead , J. & Ford , P. (1960) :

Studies on development of the kidney of the pacific pink salmon (*Oncorhynchus gorbuscha* Walbaum) III. . The development of the mesonephron with particular reference to the mesonephric tubules . Canada . J. Zool. , 38; 1 -7.

109- Nikolsky , G. V. (1954) :

Special Ichthyology . Waskington D.C. : Office of Technical services . U. S. Department of commerce . 538 pp. (Trans . from Russian by J. T. Lengy & Z. Kranthamer 1961) .

110- Nikolsky , G. V. & Aliev , D. D. (1974) :

Role of far Eastern Herbivorous fish in ecosystems of natural water bodies used for acclimatization , Vopr . Ikhtiol . 14 : 974 - 979 . (Trans from Russian in Ichthyol),14; 842-847 .

111- Ocellacher , J. (1872) :

Beitrag zur entwicklungsgeschichte der knochen fische . Z. Wiss. Zool.,1 (22) 373-421, 2 (23);1-25 .

112- Oguri , M.(1980) :

A histological investigation of the juxtaglomerular cell granules in Fish kidneys . Bull Jpn . Soc . Fish ., 46; 797 -800.

113- Oguri , M. , Kamiya , K. & Sokabe , H. (1969) :

A histological study of the juxtaglomerular cells in the kidney of Japanese mackerel . Bull. Jpn. Soc . Sci . Fish . , 35 ; 737 -742.

114- Oguri , M. & Sokabe , H. (1968) :

Juxtaglomerular cells in the teleost kidneys .
Bulletin of Japanese Society of Scientific Fisheries.
,34 ;882 -.888

115- Ohno , S. (1974) :

Aneuploidy as a possible means employed by
malignant cells to express recessive phenotype .
In James German (Ed). "Chromosomes and Cancer
" John Wiley and Sons , New York , 77 .

116- Opuszynski , K. (1972) :

Use of phytophagous fish to control aquatic plants
. Aquacul ., 1; 61-76 .

117- Oskala , T. & Therman E. (1974) :

Mitotic abnormalities and cancer . In James
German (Ed.) "Chromosomes and cancer " ,
John Wiley and Sons , New York ; 239 .

118- Ottosen , P. D. (1978) :

Ultrastructure and segmentation of
microdissected kidney tubules in the marine
flounder , *Pleuronectes platessa* Cell and Tissue
Research ,190 ; 27-45 .

119- Pascoe , D. ; Evans , S. & Woodworth , J. (1986) :

Heavy metal toxicity to fish and the influence of water hardness . Arch. Environ . Contain .Toxicol ., 15 ; 481-500 .

120- Patt , D. I. & Patt , G. R. (1969) :

Comparative vertebrate histology . Harper and Row , New York , New York , U.S.A .

121- Pearse , A. G. E. (1968) :

"Histochemistry , theoratical and applied " Vol. 1 , 3rd ed. , p. 150 . Williams and Wilkins co, Baltimore.

122- Perevozchenko , I.I. (1975) :

Effect of derivatives of carbamic - acid and thio carbamic- acid on Fish and Amphibians . Gidrobiol . ZH.,11; 95 -98.

123- Perry , P. & Evans , H. J. (1975) :

Cytological detection of mutagen - carcinogen exposure by Sister chromatid exchange .Nature., 285; 121-125 .

124- Phillips , J. G. & Bellamy, D. (1963) :

Adrenocartical Harmones PP. 208 - 257 . In U.S. von Euler and H. Heller (ed.) Comparative Endocrinology . Academic press, New York .

- 125- Pontius, H. & Ambrosius, H. (1972) :

Contribution to the immunobiology of poikilothermic vertebrates . IX. studies on the cellular mechanism of humoral reactions in perch , *Perca fluviatilis* L. Acta Biol. Med. Ger., 29 ; 319 -330.

- 126- Prein , A. E., Thie , G. M., Alink , G. M. & Koeman , J., H. (1978):

Cytogenetic changes in fish exposed to water of the River Rhine Sci . Total Environ., 9; 287-291 .

- 127- Price , J. W. (1934) :

The embryology of the whitefish , *Coregonus clupeaformis* M. Ohio . J. Sci ., 34 ; 287 -305.

- 128- Rabeni , C. F. ; Gibbs , K. E. & Stanley , J. G. (1980) :

Monitoring the effects of spruce Budworm spraying on aquatic organisms . Maine For . Rev. ,13 ; 39 -45.

- 129- Ramaswami , L. S. (1955) :

Skeleton of the cyprinoid fishes in relation to phylogenetic studies . 7 . The skull and weberian apparatus of cyprininae (cyprinidae) Acta zool. Stockholm , 36; 127-158 .

130- Rangarajan , K. (1951) :

The pronephros of *Aplocheilus melastigma* Mc.
C11 . Curr . Sci , 20 ; 187 -196.

131- Rangarajan , K. (1957) :

Development of the kidney in *Oryzias melastigma*
Mc C11 . J. Zool. Soc . India , 9 ; 130 -139.

132- Rasquin , P. (1951) :

Effects of carp pituitary and mammalian ACTH
on the endocrine and lymphoid system of the
teleost , *Astyanas mexicanas* . J. Exp. Zool. ; 117 .

133- Rasquin , P. (1956):

Cytological evidence for a role of the corpuscle of
Stannius in the osmoregulation of teleosts . Biol .
Bull ., 111 ; 399-409.

134- Refstie , T. (1981) :

Tetraploid rainbow trout produced by
Cytochalasin B. Aquaculture, 25; 51-58 .

135- Rieger , R. ; Michaelis , A. & Green M.M. (1976) :

Glossary of genetics and cytogenetics .Classical
and molecular. 4th Ed. Springer - verlag . New
York.

136- Robertson , J. D. (1916):

Verleichende untersuchungen der Chromosomen zahlen bei Susswasser- Teleosteern . Zeitschrift Zool. syst. Evolut . - forsch ., 3; 47-93.

137- Rojik , I. ; Nemcsok, J. & Boross, L. (1983) :

Morophological and biochemical studies on liver , kidney and gill of fishes affected by pesticides . Acta Biol. Acad. Sci . Hung ., 34 ; 81-92.

138- Romer , A. S. & Parsons , T. S. (1977) :

The vertebrate body 5th ed. Saunders , philadelphia .

139- Sailendri , K. & Muthukkaruppan , V. R. (1975) :

Morphology of lymphoid organs in a Cichlid teleost , *Tilapia mossambica* (Peters) . J. Morphol . , 147; 1-109.

140- Salanki , I. , Balogh , K. V. & Berta , E. (1982) :

Heavy metals in animals of lake Balaton . Water Res. ,16 ; 1147-1152 .

141- Sastry , K. V. & Siddiqui , A. A. (1982) :

Chronic toxic effects of the carbamate pesticide Sevin on carbohydrate metabolism in a fresh - water Snakehead fish *Channa punctatus* . Toxicol. Lett . (Amst) .,14 (1-2) ;123 -130.

- 142- Sastry , K. V. & Siddiqui , A. A. (1985) :

Effect of the carbamate pesticide Sevin on the intestinal absorption of some nutrients in the teleost fish *Channa punctatus* . Water . Air Soil pollut . ,24 (3); 247-252 .

- 143- Schmidt - Nielsen, K. (1979) :

Animal physiology adaptation and environment .
2nd ed. Cambridge University Press, Cambridge .

- 144- Schmitt , D. M. , Grimble , D. G. & Searcy , J. L. (1984) :

Eds. " Managing the spruce Budworm in Eastern North America " , U. S. D. A. , For . Serv. Coop .
State Res. Serv., Agric . Hand book ,No. 620 ; 192 .

- 145- Seiler , J. P. (1977) :

Nitrosation in vivo and in vitro by Sodium nitrate and mutagenicity of nitrogenous pesticides . Mutat. Res., 48 ; 225 -236.

- 146- Sharaf, A. A. , Temtamy , S. A. & de Hondt , H. A. (1981) :

Effect of Aldicarb (Temik) a carbamate insecticide , on chromosomes of the laboratory rat . Egypt. J. Genet . Cytol.,11 ; 135 -144. (1982) .

147- Sharma , M. S. (1969) :

Haemopoiesis in the kidney of *Notopterus notopterus* (Palls). Ann . zool., No11;111-114.

148- Sharma , M. S. & Shyama (1972) :

Homology of the So - called kidney in certain Indian teleosts . Ann. Zool. Agra ., 70 ;20 -40.

149- Simon , R. C. , Dollar , A. M. & Smuckler E. A. (1967) :

Descriptive classification on normal and altered histology of trout liver . J. E. Halver and I. A. Mitchell , eds. Trout hepatoma res . conc. papers . U. S. Fish wildl. . Serv., Res., 70 ; 18 -28.

150- Smalley , H. E. , J. M. Curtis & Fl. Earl (1968) :

Teratogenic action of carbaryl in beagle dogs . Toxicol. Appl. pharmacol. ,13 ;392-415.

151- Smith , H. W. (1929) :

The composition of the body fluid of elasmbranches . J. Biol . Chem ., 81 ; 407 -419.

152- Smith , A. M., Potter , M. & Merchant , E. B. (1967) :

Antiobody -forming cells in the pronephros of the teleost, *Lepomis macrochirus* . J. Immunol., 99; 876 -889 .

153- Sneed , K. E. (1971) :

The white amur . Controversial biological control.
Am . Fish Farmer World Aquacult . News .,
2; 6 -9.

154- Sofradzija , A., Vukovic , T. & Hadziselimovic , R. (1980) :

Effect of some pesticides and detergents on the
fish chromosomes sets- results of the preliminary
investigations . Ichthyologia ,12; 71-76 .

155- Somayajulu , R. S. N & D. N. Kamat (1972) :

Comparative histology of the kidney of fishes
from diverse habitats . J. Anat . Soc . Indian .,
21 ; 113 -116.

156- Sparrow, A. H. & Schairer, L. A. (1974) :

Mutogenic response of *Tradescantia* to treatment
with X - rays , EMS , DBE , Ozone , SO_2 , NO_2 and
several insecticides . Mutat . Res., 26 ; 445 -460.

157- Spigarelli , S. A. & Smith , D. W. (1976) :

Growth of salmonid fishes from heated and
unheated areas of Lake Michigan measured by
RNA - DNA ratios . In Thermal Ecology (G. W.
Esch and R. W. McFarland , eds.) Vol. II : 100 -
105 . E. R. D. A . Symposium series (conf.
750425) Augusta . Georgia . U.S. A.

158- Stancliffe , T. D. & Pirie , A. (1971) :

The production of superoxide radicals in the herbicide diquat . FEBS Lett, 17 ;297-229.

159- Stannius , H. (1839) :

Die Nebennieren bei knochenfischen . Arch . Anat. Physiol ., 8; 233 -271.

160- Stark , D. (1978) :

Vergleichende Anatomie der Wirbeltiere auf evolutionsbiologischer Grundlage Vol. 1 . Springer , Berlin .

161- Stromberg , P. C. , Ferrante , J. G. Carter , S. (1983) :

Pathology of lethal and sublethal exposure of fathead minnows *Pimephales promelas* to cadmium : a model for aqualtic toxicity assessment ., 11; 247-259 .

162- Sullivan , L. J., Chin , B. H. & Carpenter, C. P. (1972) :

Toxicol . appl. pharmacol. , 22; 161 . Cited by Duangsawasidi & Klaverkamp (1979)

163- Sundaram , K. M. S. & Szeto , S. Y. (1985) :

J. Environ . Sci . Health ., B₂₀ ; 187 . Cited by Sundaram & Szeto (1987)

164- Sundaram , K. M. S. & Szeto , S. Y. (1987) :

Distribution and Persistence of carbaryl in some Terrestrial and Aquatic compounds of Forest Environment . J. Environ . Sci. Health . ,B₂₂ (5) ;579 -299.

165- Szeto, S. Y. & Holmes , S. B. (1982) :

J. Environ. Sci. Health ., B₁₇ ; 51 . Cited by Sundaram & Szeto (1987)

166- Thilager , A. K. & Kumargo , V. (1983) :

Induction of chromosomal damage by methylene chloride in CHO cells. Mutat . Res. ,116; 361-367 .

167- Thomas , P. C. & Murthy, T. L. (1978) :

Changes in few piscine enzymes due to Endrin and Sevin toxicosis . Indian. J. Fish .25 (1-2); 1 -8

168- Tsuchiya , M. (1979) :

Natural reproduction of grass carp in the Tone River and their pond spawning .In : Shireman . J. V. (Ed.) 1979. Proceeding of the grass carp conference Gainesville Fl: Aquatic Weeds Research center . Univ. of Florida , Institute of food and agriculture science . 185 .

- 169- Uchiyama, M. ; Takeda, M. ; Suzuki, T. & Yoshikawa , K.(1975):

Mutagenicity of nitroso - derivatives of N. Methyl carbamate insecticides in microbiological method . Bull . Environ . Contamin .Toxicol , 14 ; 389-400.

- 170- Vincent, S. (1898) :

Contribution to the comparative anatomy and histology of the suprarenal corpuscles , the suprarenal bodies in fishes , and their relation to the so- called head kidney . Trans . Zool. Soc. London , 14; 41-84.

- 171- Warnick , S . L .; Gaufin , R . F . & Gaufin , A . R . (1966) :

Concentration and effects of pesticides in aquatic environments . J . Am . Water Works Assoc . , 54 ; 83 -87.

- 172- Webb, F. E. (1978) :

In "Proceedings of canada us symp. on spruce Budworm control with Sevin - 4 - oil , Dec. 6-8 , 1978 , Montreal , Que . " Union Carbide Agric . Products Div. , Jacksonville, FL, 88.

- 173- Webb , H . J . (1962) :

Water pollution resulting from agricultural activaties .J.Am . Water Works Assoc . ,54;83.87.

- 174- Weil , C. S.; Woodside, M . D. ; Carpenter , C. P. & Smyth, H. F. (1972) :

Current status of tests of carbaryl for reproductive and teratogenic effect . Toxicol . Appl. pharmacol ., 21 ; 391-406 .

- 175- Weiss, J. & Weiss, P. (1977) :

Effects of heavy metals on development of the killifish , *Fundulus heteroclitus* . J. Fish Biol ., 11; 49 -54.

- 176- Wilder , J. B. & Stanley J. G. (1982) :

RNA - DNA ratio as an index to growth in salmonid fishes in the laboratory and in streams contaminated by carbaryl. J. Fish Biol. (1983) , 22 ; 165-172.

- 177- Woodhead , A. D. (1977) :

Aging changes in the liver of two poeciliid fishes , the guppy *Poecilia (Lebistes) reticulata* and the Amazon molly *P. formosa* . Experimental Gerontology, 13 ; 37 -45.

- 178- Yahalomi , Z. & Perry, A. S. (1981) :

Microsomal mixed function oxidases in fish in relation to environmental contamination chlorine insecticides . Comp. Biochem. Physiol. C. Comp. Pharmacol., 70 (1) ; 97-102.

179- Yoakim, E. G. & Grizzle J. M. (1980) :

Histological , histochemical and ultrastructural studies on the interrenal and chromaffin cells of the Fathead minnow, *Pimephales promelas* Rafinesque . J. Fish Biol. ,17 ; 477-494 .

180- Yoffey , J. M. (1928) :

A contribution to the study of the comparative histology and physiology of the spleen , with reference chiefly to its cellular constituents . I. In fishes . J. Anat., 63; 314 -344.

181- Yunis, J. J. (1983) :

The chromosomal basis of human Neoplasia . Science ., 221; 227 -236.

182- Zabezhinokii, M. A. (1970) :

Possible carcinogenic effect of B Sevin . Vop Onkel . ,16; 106-119 .

183- Zapata , A.(1979) :

Ultrastructural study of the teleost fish kidney . Develop. and comp. Immunol., 3; 55 -65.

184- Zhestyanikov, V. D. (1982) :

DNA repair and cell repair . Prog. Mutat. Res ., 4 ;325-335 .

185- Zitko , V. & Carson , W. G. (1976) :

A mechanism of the effects of water hardness on the lethality of heavy metals to fish .
Chemosphere ,5; 299-303

186- Zon, J. C. J. Van & Zonderwijk , P. (1976) :

Grass carp in the Nethertands. Vakble. Biol. ,18
;282 -285.

187- Zowail , Mohammed E. M.(1986) :

Classical versus cytogenetical methods of classification as applied to a vertebrate group. Ph.D.
Thesis ,Faculty of ,Science ,Al-Azher University.