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RESEARCH INTO THE LIFE OF THE TISZA CONFERENCE ON TISZA RESEARCH IN 1975

Complited by
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In 1975, the Conference organized annually was held on 25—26 April, in the Assembly Hall of the Club-house of the Academy Committee in Szeged. On this occasion there were delivered 16 lectures in the course of the two days. Most reports were followed by a vivid discussion.

The main aim of the Conference was this year, as well, to enable also the co-workers whose activity takes place far from the basis of the Tisza-Research Working Committee, to meet one another, to become acquainted with the results of the research work in the period past that they can utilize in their own fields of action, too. The aim of the management is in the future, as well, to promote as much as possible an early realization of some investigations of complex character.

The Conference was beginning with the inaugural address of Professor and Head of the Department of Botany, Dr. IMRE HORVÁTH, filling the Chair. He offered a detailed survey of the development of Tisza research traced since 1945. He spoke of the importance and the three main scopes of tasks of the researches of complex character; namely of the research works performed 1. in the district of the Kisköre Reservoir, 2. in the Region-Conservation District at Mártély-Sasér, and 3. in the district of the planned Csongrád Reservoir, as well as of the research works to be performed in the future, and of the importance of all these. —

After that, the lecture series and the discussions connected with these began.

I. Investigations carried out in the Kisköre District

1. P. VÉGVÁRI:
Water-chemical investigations in the district of the Kisköre Reservoir in 1974
(Published in Vol. 10 of the Tiscia)

Contributions to the discussion:

I. HORVÁTH: Asks how much the last year's flood approached the definite damming level.
The lecturer's reply: It was approached to 50 cm.

M. ANDÓ: Asks if there was any heat-stratification.
Reply: There was none. But there was a difference between the surface and the 6 m depth mainly in respect of the suspended-matter content, as well as the chemical components in connection with that.

I. BELICZAY: Asks why the mass of water and the content of alluvial deposits are larger at the spring flood than at the autumn one.
Reply: In Spring, the water coming from the Carpathian Mountains transports a larger alluvial deposit mass than the water of the Sajó and Bodrog in Autumn.

M. ANDÓ: The differences shown in the Ca and Mg content of the water may probably be attributed to geographic causes, as well, as the larger or smaller water mass had come from different watershed areas. Owing to the large water surface and water mass, large waves may be formed, and that may mean embankment problems, too.

2. J. HAMAR:
Algological investigations in the district of the Kisköre Water Reservoir
(Published in Vol. 10 of the Tiscia)

3. I. BANCSI:
Rotatoria and Crustacea investigations in the dammed up Tisza-stretch at Kisköre
(Published in Vol. 10 of the Tiscia)

4. A. HARKA:
Exploratory investigation of migration and growth of the carp in the river-stretch at Tiszafüred

On April 11, 1972, we marked 2000 bi-annual mirror carps and introduced them into the Tisza in the stretch at Tiszafüred.

Because of the low number of reports back, for the time being we can only arrive at some establishments of informative character.

The migration of the introduced individuals from there is considerable. But the opinion according to which the overwhelming majority of fish are washed off by water, is not correct. The ratio of fish swimming up-river is considerable and the distance made is also long: the farthest site of observation is Tiszalök, 97 river-km from the place of fish-introduction. For fish swimming down the river, the longest distance of observation is 184 river-km, in the vicinity of the Körös mouth. In spite of the migration, a considerable part of fish have remained in the district of introduction.

The growth of carps is generally favourable in the river-stretch mentioned. From among the carps introduced 7 individuals of 40 decagramme average weigh grew on average to 204 decagrammes in 15 months and a half. (The individual weights changed between 100 and 250 decagrammes).

The chance of the fish introduced in this river-stretch to leave the territory of the country is very low because a large part of the fish swimming down the river swims backwards in the water-courses discharged into the Tisza.

Contributions to the discussion:

M. MARIÁN: Adds to the lecture that from the Lower-Tisza Region there was no report back on the carps indicated. Social cooperation would be needed in order to get systematic reports.

R. VÁMOS: In the plants a large mass of N accumulates. After the destruction of plants, NH_3 and H_2S may increase what is harmful to fish.

I. HORVÁTH: Emphasizes the efficiency of collective work. The results of the investigations in 1974 yielded several valuable data that may be important for later researches.

P. VÉGVÁRI: It would have been advisable to submit the fish caught to gas-chromatographic investigations. In that way, the degree of chemical pollution could have been demonstrated.

MÁRIA VOLEMANN: Says they undertake the gas-chromatographic investigations.
M. MARIÁN: Asks if the fish in the meanders of the holm at Körvélyes were investigated.
The lecturer's reply: No, they were not.

II. Investigations carried out in the Region-Conservation District at Mártély-Sasér

5. Á. FARKAS:
Pisces fauna of the Tisza dead-arm at Körtvélyes

Contributions to the discussion:

J. HAMAR: Asks if the Lower Tisza-reaches could be investigated.
The lecturer's reply: He alone cannot undertake it.
I. LŐRINCZ: Asks if at flood the Tisza gets fish supply from the dead-arms.
Reply: It gets that and it would be very good to ensure a stable water-level in the dead-arms.
K. BÁBA: The pollution of dead-arms is mostly the same as, or stronger than, that of the Tisza. They are, therefore, not suitable for fish-breeding.
M. ANDÓ: Only a part of the dead-arm at Körtvélyes is suitable for spawning as the water at the dam-keeper's house and its surrounding is too muddy. The stable water surface of the dead-arms is not easy to be fixed if only because in case of law water in the Tisza there is waterose from the dead-arms. By means of lockage and canalization it could anyway be solved to use the dead-arms for introduction of young fish, resp. propagation of fish.
P. VÉGVÁRI: In case of increasing the Tisza regulation the stabilization of the water surface in the dead-arms is to be expected.

6. I. HORVÁTH and GY. BODROGKÖZY:
Connection between stock-structure and organic-matter production in the marshy meadows in the Tisza flood-plain at Körtvélyes
(Published in Vol. 10 of the Tiscia)

Contributions to the discussion:

J. HAMAR: Asks if the measuring of vegetable production differs only methodically at samples got from water and land.
Reply: The methodical differences are only decisive.
K. BÁBA: Asks if the plant species have a special effect on the definite formation of N—P content.
Reply: There are some differences in species.

7. I. BELICZAY:
Forestry problems of the holm at Körtvélyes

After the regulation of riverways, the natural flood-land wood-associations, regional sceneries have changed, mostly perished. Due to that, the regional aesthetics has got poorer, the possibility of biological researches narrowed down and that is, in the last analysis, a loss for science.

In Western and Central Europe, the flood-plain biological biocoenosis has survived in the largest continuous area, with the comparatively lowest — but considerabledamage in the Region-Conservation District in the flood-plain of the Tisza at Mártély-Sasér.

Our aim is to preserve and reconstruct the region, the biological biocoenosis that developed owing to the regularization of the river, as an open-air museum. There is to be applied a sylvicultural technique by the help of which the still surviving wood-associations can be preserved and those already changed can be reconstructed.

Contributions to the discussion:

M. ANDÓ: Asks what the natural regeneration of the flood-plain wood vegatation is like.
The lecturer's reply: Assessments like that have not been taken place.

K. BÁBA: After machine-work and planting, the soil-fauna is very poor. In Region-Conservation Districts the hand-operated cultivation would be more practical.
Reply: Some efforts have already taken place in this direction: the parallel application of machine- and hand-operated cultivation.

J. HAMAR: It would be advisable to preserve and breed, resp. cultivate the rare plant and animal species in a conservation area. It would be useful to root out weeds and shrubs by hand.
Reply: The intention is to preserve the rare species by transplanting them into Region-Conservation Districts. In case of deciduous woods, the remains after rooting out are burnt.

M. MARIÁN: Asks why the damage done by game is larger in a cultivated area.
Reply: In non-cultivated areas, the weeds are considerably consumed, as well, by the game.

8. M. MARIÁN:
The part played by floods in the development of the avifauna in the flood-plain of the Tisza
(Published in Vol. 10 of the Tiscia)

Contributions to the discussion:

J. HAMAR: Asks if sea-gull species can be present at the reservoirs.
The lecturer's reply: Yes, they can.

I. SZŐKE: Is interested in the effect of urbanization.
Reply: The holiday home at Mártély must not expand. Körtvélyes is closed from disturbance by an inserted buffer area.

9. I. DOSZTÁL:
Some data on water-bug species of the flood-plains of the Dead-Tisza at Körtvélyes and the Double-Körös

The investigations were performed in 1973. The areal distribution of the investigations was:

Dead Tisza at Körtvélyes,
Double-Körös and its dead-arms.

The aim of the investigations was to establish what degree of similarity is shown by the biotopes of certain water-bug species and the composition of the plant-stand of the biotope, in various sampling areas. I have established that the *Hydrocorita* species of the dead-arm at Körtvélyes are living in four biotopes differing from one another by their plant-stand.

Comparing these results with those of the investigations performed in the region of the Double-Körös, I established a considerable similarity in respect of the plant-stand in the living-space of a few water-bug species. I am dividing the most important ones of these into the following groups:

water-bug species	plant species
Naucoris cimicoides L. PLEA LEACHI MC GREG. KIRK *Hydrometra gracilenta* HORV.	*Ceratophyllum demersum, Myriophyllum verticillatum, Potamogeton* sp.
Micronecta meridionalis COSTA	at the surface of a mud saturated with broken organic fragments, there is no water vegetation max. to ten cm depth

Ranatra linearis L.
Nepa cinerea L.
On the basis of the material elaborated so far, at the species

Phragmites communis, Typhya angustifolia, Carex sp., *Polygonum amphibium*

Sigara laterialis LEACH,
Sigara striata L.
Sigara falleni FIEB.
Corixa affinis LEACH

I have not found any special plant association referring to their presence.

Contributions to the discussion:

L. MÓCZÁR: Asks if a quantitative collection was carried out.
The lecturer's reply: There were only collections of informative character.

J. HAMAR: In smaller waters there live several water-bugs. In the traffic in materials they have a considerable part.
He asks: If they have in larger waters a more considerable part. He asks, too, how many species in Hungary are known.
Reply: Bugs avoid the deeper, rippling waters, they have therefore no part in the traffic in materials. They have a more considerable importance in natron lakes. In Hungary, 16 to 24 species of them are known.

K. BÁBA: Asks if there are some species characteristic of water plants and, if there are any, whether their quantity is or is not characteristic.
Reply: He observed some special species in some plant-associations: *Naucoris cimicoides* is a species like this. In some muddy pools, from places rather rich in organic matter, *Micronetta meridionalis* was found.

L. GALLÉ, Sr.: Asks if the lecturer compared the results of his investigations to Zogler's and Csongor's data.
Reply: Mainly Csongor's qualitative data were useful as he collected from similar sites. The species generally agreed.

10. L. TANÁCS:
The Apoideae of the dams of Mártély-Körtvélyes and Tiszasziget
(Published in Vol. 10 of the Tiscia)

Contributions to the discussion:

J. HAMAR: Asks if the pollination of the agricultural plants is connected with the presence of Apoideae
He asks further on, if the pesticide-induced destruction of these was osberved, and if they can be brec if necessary.
Reply: Pollination and the presence of Apoideae are connected with each other. Pesticides are often used in dilettantish way, they destroy therefore bees, as well. These plant-protecting insecticides should be applied as depending upon season and the part of the day. The breeding of Apoideae is possible under convenient climatic conditions.

L. MÓCZÁR: Emphasizes the importance and necessity of the hydrobiological researches. He appoves of investigating the flood-plain as a completion. He thinks it proper to carry out in ihe future more exact quantitative investigations, in addition to the surveying investigations carred out so far. The ecological investigation is important, as well. Fewer species but more fundamentally.

III. Preparation of the investigations planned in the district of Csongrád

11. A. BANKOVICS:
Region-Conservation problems of the districts of Tőserdő and the Tisza III river barrage

After the districts of Kisköre and Mártély, that of Tőserdő will be the third complex area of investigation of the Tisza-Research Working Committee. The begin-

ing of investigations there as soon as possible is justified by two circumstances. On the one hand, since Janaury 1, 1975, the area has belonged to the National Park of Kiskunság (Little Cumania: a district of South-Centrall Hungary), its investigation is therefore important as that of a nature-conservation area. On the other hand, the area of Alpár, immediately south of Tőserdő, will considerably change in its regional feature, too, after the Tisza III river barrage being built. In the further parts of the lecture, the area of the National Park of Kiskunság at Tőserdő and the present projects of the Tisza III river barrage are outlined.

Contributions to the discussion:

I. HORVÁTH: Is pleased to hear that the suggestions of the Tisza-Research Working Committee, as wall, are taken into consideration at building the Tisza III river barrage. First of all, the research of the future area of the reservoir is to be organized.

P. VÉGVÁRI: Asks if somebody has already dealt with the water-quality to be expected. It is good that the reservoir will not be in a direct connection with the river itself. Thus it won't pollute it back.

K. BÁBA: Tőserdő is already at present full of weekend-houses. The character of being a reservoir is disturbed by that fact. The reservoir will contain Danube-water. He asks if the area of the Kiskunság National Park will not be endangered by that strongly polluted water.

T. KERESZTES: In the future area of the reservoir there is at present no continuous sampling but it has a part in the perspectivistic plan of the Water Administration of the Lower-Tisza Region. He offers the help of the Water Administration in the research work connected with the reservoir, and asks the Tisza-Research Working Committee to include in its plan of work the research of the connection between pesticides and the water ecosystem.

J. HAMAR: The Tisza III. River Barrage will be built at Csongrád. But is possible that the Danube Canal will connect with the Tisza at Szolnok.

A. BANKOVICS: The reservoir will store 400 million cubic metre water mass that is expected to damm back the Tisza up to Kisköre. The reservoir filled up with Danube-water is isolated from the Kiskunság National Park, a negative effect is, therefore, not to be expected. Tőserdő is of grove-wood character, it cannot be sealed off from people.

IV. Investigations carried out in other areas

12. T. K. KISS:
Recent data on the algae of the Tisza Eastern Main Channel

Contribution to the discussion:

J. HAMAR: He congratulates. At evaluating eutrophization, the maximum values are really to be taken into consideration. The norms of water management for eutrophization are to be revalued if the eutrophization induced by human influence can in that way filtered out of it.

L. GALLÉ, Sr.: He saw in the pictures that irregular algae have a part among those originating from eutrophic waters. That may be caused just by the considerable multiplication.

T. K. KISS: No question about it that an anthropogenous effect has been reflected by the rise in algal number since the early 1960.

13. L. GALLÉ, Sr.:
Influence of biotic and abiotic factors upon the change in the lichen vegetation along the Maros

The first lichenological data in the flood-plain of the Maros in Hungary originated from ISTVÁN GYŐRFFY who collected the lichen species *Baeomyces rufus* (HUDS.) REBENT, under the name *Sphyridium byssoides β/carneum*, at Maroslelle, in October 1905. This primarily montanous, terricolous lichen couldn't be found again either in the region of Makó or in that of Szeged. Since Győrffy's find up to 1960 there have

not been any lichenological data from these areas. Then GALLÉ reported in the "Acta Botanica", and later, in 1967, in the "Fragmenta Botanica" on 141 species belonging to 39 genera, 66 varieties and 89 forms, classifying these into eleven different lichen-econoses. From among these 93 species and several varieties of these lived in the area bordered by the dams of the Maros. Among the 93 species there occurred 12 ones that were rare mountain-species even in the northern regions of the Great Hungarian Plain. From among these species there cannot be found any more in the same area. The causes of the change are, according to the author, that the revetments, consisting mainly of andesite, and together with them the epilithic lichen-species disappeared from the dams, that the old, mainly superannuated oak-forests (Querceta) were cleared along the Maros, that most part of the flood-areas were drawn under agricultural and small-plot cultivation and, in connection with that, under anthropogenous effects, the lichen species that are extremely sensitive to herbicides, disappeared from the area.

14. K. BÁBA:

From where the woods of the Tisza valley are populated by snails From the Great Hungarian Plain, in the 1940s, 48 land-snail species were known. (On the basis of the works of SOÓS, ROTARIDES, CZÓGLER). 15 species of these, found at the skirts of the Plain, were not reckoned to the snail fauna of the Plain in the strict sense of the word. The snail fauna of the Plain was characterized on the basis of not more than 32 species.

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As a result of the older and recent collections, from the Great Plain 82 species are demonstrated. 47 per cent of the 82 species are hydrophilic, sylvicolous. (According to our earlier knowledge, they occurred in the mountains). These species are the constant dominant elemetnts of the woods in the Plain at present, too. The sylvicolous elements are to be found in the natural forests.

In the woods belonging to the same line of succession, the 82 species are distributed so that 41 per cent of them are living in the willow-plantations, 67 per cent in the flood-plain grove-woods as developed from the latter ones, 33 per cent in the hornbeam oak-woods, developing from the grove-woods, and 24 per cent in the oak-woods with lilies-of-the-valley. In the alkali oak-woods isolated from the river, and in the ash-alder bogs developing in organogenous way, only 7, resp. 33 per cent of the total species numbers are living. In the developmental series starting from the sand-grasses and leading into the steppe oak-plantation, 34 per cent of the species occur.

Farther from the river, the species number occurring in the single wood-types, and inside the species number, the number of the sylvicolous elements decrease.

It is proved by the results that the richness of the snail fauna of the Great Plain in hydrophilous, sylvicolous species is a result of the fauna-transporting effect of rivers. And that is showing the stocking of the malacofauna of the Great Hungarian Plain from the mountains.

The animals brought down by water either perish or, getting to a higher relief (the grove-woods), survive for a shorter or longer time, respectively they become

acclimatized. The species acclimatized are, owing to the character of grove-woods-moderately oligothermic. (The great masses of the sylvicolous acclimatized animal, are accessory elements showing a 10 to 20 per cent permanence value).

In some places, the lecturer mentions a few examples showing that the snails may spread from one wood-type over another, even in case of mountain- and plain-woods being in a continuous connection with each other. This way of spreading becomes today rarer than before, due to the present sylviculture.

The stocking by river water is general and may be observed in case of other animal categories, as well (*e. g.* the 82 rare mountainous insect species of Bátorliget in Újszentmargita the two montan *Isopoda*-species found by LOKSA). The largest number of the 500 betele-species transported by the flood of the Maros were found by József Erdős to be generally spread in the Great Plain.

Contributions to the discussion:

L. GALLÉ, Jr.: At the fauna-genesis of the Tisza valley, it is to be taken into consideration that not only a mountain-fauna but also a fauna of southern, Mediterranean-steppe character are conveyed through the flood-plain of the river to the Great Hungarian Plain.

J. HAMAR: Asks if water-snails, too, are conveyed through the Tisza valley.

M. MARIÁN: Approves very much of delivering lectures of comprehensive character and making papers like this.

The lecturer's reply: He has not found any southern species in the Tisza valley. In treeless areas he did not experience any sudden advance fo the steppe-elements. Water-species are conveyed by the Tisza, as well.

15. A. LEGÁNY:
Ornithological problems of poplars in the flood-areas of the Tisza

Contributions to the discussion:

B. SZŐKEFALVI-NAGY: Asks where the nestlings, flying out in a wood planted, later settle down

I. BELICZAY: The settling of a mixed stock cannot be solved in the flood-plain.

L. MAGYAR: Asks whether the sylviculture by plantation means or does not mean a ruthless exploitation of woods, as well. He asks if the lecturer observed that the settling of some birds is helped or unfavourably influenced by the branching type of trees.

M. MARIÁN: The lecturer has performed a solid, substantial work. Sparrows settle down in small holes of skort opening, as well.

The lecturer's reply: The yound birds settle in another place after flying out. We should need more artificial holes for maintaining them successfully in the area. In the flood-plain no soil-impoverishment could be observed.

16. GY. CSIZMAZIA:
Prediction of flood-waves in the Tisza and their connection with the stock of game

The up-to date observation of nature is showing the natural phenomena in a quite new, original perspective. The connection between the stock (and so the economy) of game and the environment must therefore get a new perspective, a new content, in case of the populations living in the Tisza flood-plain, as well. In the lecture mentioned the decisively important ecological conditions that make the game economy possible. There is an organic connection between the soil of the biotope, the size and shape of its vegetation, and the stock of game. The investigations carried out in the Region-Conservation District at Mártély-Körtvélyes have proved the strong destroying effect of the flood-waves on the stock of game in the flood-area. In case of deer, hare, pheasant, partridge, the damage can be proved with statistical

data. The theoretical and practical investigation of this very considerable problem that is important from the point of view of the people's economy, as well, seems to to be necessary in the future, too. In can be established that, knowing the predictions of the water-levels of the river, a preliminary plan may be prepared for alarming the game. In 1972, the lecturer, too, carried out a partly successful alarm in the area investigated, on the basis of a plan prepared by the Water Management Department of the Water Administration of the Lower-Tisza Region. It would be impotrant to prepare the exact graphs of flood-prediction for the whole flood-plain of the river, taking into consideration the local geomorphological conditions. On the basis of a graph like this, the alarm of game could be organized by every association of huntsmen.

Contributions to the discussion:

A. BANKOVICS: Asks if any nettings took place for establishing the sex-ratio of the stock of hare.
L. TANÁCS: Asks the rate of deer destruction of as a result of a flood-wave.
D. GÁL: Asks if there were sex-ratio investigations at the autumn-winter huntings.
I. BELICZAY: Game-savers should be created for preventing the flood-induced damages.
J. HAMAR: Asks in what time the game forced out by flood generally returned.
The lecturer's reply: The determination of sex-ratio took place not on morphological but on ethological basis. The flood-induced destruction may be of 90 to 95 per cent. Driving-out before the flood-wave could be successful but it occurred that the game returned in 24 hours.

V. Organizational problems

17. M. MARIÁN:
Results of the Tisza research in 1974, and its tasks for 1975

Contributions to the discussion:

I. HORVÁTH: The main principles of the Tisza-research work are as follows:
(1) Region and nature conservation,
(2) Region reconstruction,
(3) Prognosis of anthropogenous changes.
Our basis-areas are:
(1) Kisköre — here the water-biological researches are ensured by the laboratory works in maximum way. The botanical and zoological researches are, however, to increased.
(2) In case of Mártély-Sasér, on the other hand, the development of the hydrobiological researches is desirable.
(3) Csongrád river barvage: the basis of our activity is to aid the solution of the given practical problems with basic researches.
Partial tasks of investigating the single areas:
Csongrád (Tisza III) river barrage:
(1) The area of the Kiskunság National Park and the future area of the reservoir, as well, are to be explored equally from botanical and zoological points of view.
(2) The schedule of reservoir building is to be procured.
(3) The Water Administration of the Middle-Tisza Region is to be requested for storing the plankton samples.
(4) The researchers of the Kisköre laboratory ought to prepare collaborating projects.
Region-Conservation District at Mártély-Körvélyes:
(1) Basic researches for setting the forest ecosystems,
(2) Research of the underwood.
(3) Research of fish in the dead-arms.
(4) Study of the effect of pasturing.
Kisköre (Tisza II):
(1) The Kisköre laboratory continues its investigations.
(2) The ornithological research of the area at Cserőköz.

M. MARIÁN: Vol. IX. of the Tiscia came out. Closing of MSS: on June 30, every year. The Abstract of the lectures delivered is requested. Two copies of the articles on Tisza research, if published not in the Tiscia, are to be sent to the Tisza-research library.
Tisza-research publications in 1974: 14 papers are published, 21 are in manuscript, 20 lectures were delivered.
Inland schloraships were given to eight co-workers but three of them have not used it. For 1975, schloarships were asked for by eleven persons.
Two colleagues in the educational service have obtained a 500 Ft grant each. The study-tour of a person to Poland was aided by the Tisza-Research Working Committee. Tisza Research has got two premises in the Botanical Gardens.
The Researcher House at Körvélyes is complete. It is at the disposal of the researchers.
Three of the co-workers obtained university doctor's degree, three of them candidate's degree, and one academic doctor's degree last year.
I. HORVÁTH: Wishing the participants further good work, he closes the Conference.

TISCIANA HUNGARICA SERIES 1973—1975

Complited by
M. MARIÁN

A list given below of the publications of members of the Tisza-Research Working Commettee wich appeared between 1973 and 1975, and wich were included by the Tisza-Research Working Committee in the Tisciana Hungarica series.

89. ANDÓ M.—VÁGÁS I. (1973): The flood in the Tisza Valley in 1970. — Studia Geomorphologica Carpato-Balcanica, Karkow 7.
90. BÁBA K. (1974): Mollusca communities in the Tisza bed in the region of Szeged. — Tiscia (Szeged) *9*, 99—104.
91. CSOKNYA M.—FERENCZ M. (1972): A study of Palingenia longicauda Oliv. in the zoobenthos of the Tisza and Maros (Ephemeroptera). — Tiscia (Szeged) *7*, 47—59.
92. FERENCZ M.(1974): Zoobenthos studies on the lower reaches of the Tisza and Maros. — Acta Biol. Szeged. *29*, 143—155.
93. GÁL D. (1972): Rhizopodenfaune de Theiß-strecke über der im Bau begriffenen II. Theißstufe. — Tiscia (Szeged) *7*, 29—35.
94. GALLÉ L. (sen.) (1973): Die Flechtenvegetation der Eschenbaumstamme langs der Theiß. — Tiscia (Szeged) *8*, 42—52.
95. GALLÉ L. (jr.) (1972): Formicidae populations of the ecosystems in the environs of Tiszafüred. — Tiscia (Szeged) *7*, 59—68.
96. HARKA Á. (1974): Study of the fish population in the region of the second series of locks on the Tisza. — Tiscia (Szeged) *9*, 125—143.
97. HORVÁTH A. (1972): Aquatic Mollusca fauna of the flood-area and dead-arms of the Tisza. — Tiscia (Szeged) *7*, 34—46.
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