

Scientific Societies for Hydrobiology/Limnology in the Post-War Period of Divided Germany

A limnologist remembers

Wolf von Tümpling sen.

Abstract: The extremely different social conditions in the two parts of Germany: Stalinist dictatorship of a communist single party in the Soviet occupation zone and later GDR, pluralistic bourgeois democracy in the western occupation zones and later FRG, also led to different organization of the scientific professional societies. Under Soviet occupation, all societies were dissolved and expropriated, while new foundations were approved under strict control. In the GDR, for example, new scientific societies were founded in strict contrast to the all-German societies and subordinated to the Academy of Sciences. Within the Biological Society, a section, later a working group, on hydrobiology was founded in 1965 as the nucleus of the later Ecology Section. This working group had considerable scientific potential for an interdisciplinary exchange of knowledge and experience in the field of limnology, especially also in cooperation with the Water Chemistry Section of the Chemical Society and the Water Section at the Technical University of Dresden. Limited capacities for paper and printing permits, detailed application procedures for inviting foreign

professional colleagues restricted the work. Nevertheless, an intensive exchange of experience and knowledge transfer was achieved with numerous conferences. National and international visibility was achieved through participation in standards and standard literature as well as co-editing a professional journal. With the reunification of Germany, the history of this professional society also came to an end. Its members joined (the now all-) German Society for Limnology. This was founded in 1984, as the practice-oriented limnologists felt that their problems were not sufficiently taken into account in the German section (IVL) of the Societas Internationalis Limnologiae (SIL). The spheres of activity of both professional societies corresponded scientifically to the same level. However, the practical impact of the DGL as a registered society was significantly higher due to its much greater and independent degree of freedom. This applies to the possibilities for conferences and publications as well as cooperation in legislative projects, such as ordinances, standards and the like, and also to relations with authorities, associations, expert panels and committees, as well as with national and international, domestic and foreign, related scientific organizations. In the united Germany, this scientific society will continue to develop successfully with the far-reaching important perspectives of its branch of science.

Keywords: GDR, FRG, Germany, occupation zones, post-war period, SMAD order, hydrobiology, limnology, scientific professional society, Biological Society of the GDR, German Society for Limnology

Limnology^{1,2}, has been a well-established field of natural sciences in Germany since the end of the 19th century, documented e.g. by the

Scientific institutions:

- The Biological Station in Plön (1891), later Max Planck Institute (MPI) for Limnology, today MPI for Evolutionary Biology³,
- the Biological and Fishery Experimental Station at the Müggelsee (1893), later Institute of Inland Fisheries, today Leibnitz Institute of Freshwater Ecology and Inland Fisheries (IGB)⁴;

Practical limnological stations⁵

- the Limnological Station Niederrhein (1928), and

Technical environmental agencies such as:

- the Main Water Investigation Office in Wiesbaden (1909)⁶,
- the Waste Water Investigation Office in Hildesheim (1912)⁷, from 1927 River Water Monitoring Office, today Lower Saxony State Office for Ecology (NLÖ),
- the Werra water quality office (1913)⁸, later the official river monitoring office in Vacha, then in Gerstungen, closed after more than 90 years.

So it is no wonder that in 1922 an international scientific society of limnology was founded in Kiel by the German August Thienemann and the Swede Einar

Naumann: The *Societas Internationalis Limnologiae Theoreticae et Applicatae*, today International Society of Limnology – *Societas Internationalis Limnologiae* (SIL)⁹. At present, the SIL unites about 1250 members from 70 countries and since its foundation has organized 34 international congresses in 26 countries as well as numerous other scientific meetings on focal points of aquatic ecology. The SIL has national sections whose national representatives, together with the Executive Committee, form the International Committee. In German-speaking countries, the SIL is also known as the International Association for Theoretical and Applied Limnology (IVL).

In post-war Germany, the scientific and practical work of limnologists remained important, partly due to the economic upswing and the resulting demands on water and water bodies. However, the political and social conditions in the divided Germany went the well-known opposite ways.

1 Hydrobiology Section/Working Group of the GDR Biological Society

In the Soviet occupation zone, on the basis of Order No. 124 of the Soviet military administration of 30 October 1945¹⁰, the property of all associations was confiscated and, at the instigation of the Soviet occupying power, all civil associations were dissolved on 1 January 1946 in order to allow new associations with a corresponding political orientation to be founded.

With the founding of the GDR, there was then a right to free association according to the constitution¹¹. But according to our democratic understanding, there were no truly free associations, professional associations or professional interest groups. Even sports clubs were always assigned to a state-owned enterprise or later to a combine, a craft production cooperative (PGH) or an agricultural production cooperative (LPG), or to a state institution such as the National People's Army as an army sports club (ASV) or the Ministry of the Interior including the State Security (Sportvereinigung Dynamo – Dynamo Sports Club). For other areas, centrally managed and controlled institutions existed, e.g.

- the cultural society (Kulturbund)¹² (founded in 1945, e.g. for homeland lovers and collectors, artists, etc.),
- the Chamber of Technology (Kammer der Technik, KdT)¹³ (founded in 1946 by the state trade union (FDGB) for engineers and technicians),
- the Writers' Association (Schriftstellerverband)¹⁴ (founded in 1950, initially within the Kulturbund).

In the field of science, the GDR founded its own specialist societies in order to distance itself publicly and visibly from the existing German specialist societies. For this reason, the Biological Society of the GDR was founded in 1959. Within this

society, the Hydrobiology Section began its activities in 1965 at the 3rd General Assembly of the Biological Society in Erfurt within the framework of the symposium “Ways to record the bioactivity of water bodies” and an excursion to the Thuringian Basin. It was the “nucleus” of the Ecology Section founded in 1968, in which it then existed until 1990 as the Hydrobiology Working Group (WG).

There was a need for such a specialist society, at least within the GDR, because the colleagues were almost completely isolated, at least from the “non-socialist currency area (NSW)”, i.e. the “western” foreign countries. In the Federal Republic, the SIL with its German section IVL was open to limnologists. For interested limnologists in the GDR, the membership in the IVL/SIL was impossible due to the lack of foreign currency for the membership fee and the extreme travel restrictions and bans, with the very few exceptions of the “travel cadres”. One of these exceptions was Prof. D. Uhlmann, Dresden¹⁵, who was vice-president of the SIL from 1987 to 1991 and holder of its E. Naumann–A. Thienemann Memorial Medal¹⁶. In a very collegial manner, he used his publishing fees in convertible currency to ensure that some other colleagues at least received the Congress Proceedings. All in all, the Section/AG Hydrobiology is about 20 years older than the DGL because of this isolation alone.

Both the sponsorship and the state supervision of all scientific specialist societies lay with the Academy of Sciences of the GDR, which was opened on the basis of SMAD Order No. 187 of 01.07.1946¹⁷. Without it, there was neither an (insufficient) paper quota nor even a printing permit. But they were also needed for lecture rooms and accommodation. The invitation of foreign colleagues was only possible with their consent and detailed justification for each individual person to be invited. So the organizational and administrative problems were sometimes considerable, but solvable with the necessary skill and improvisation, and professionally there were enough ideas and material.

The leadership of the Section/WG Hydrobiology consisted of – mostly en bloc – elected professional colleagues, in whose selection the various fields of work – research, teaching, and practice – were equally weighted. This leadership elected the chairperson and the scientific secretary of the Section/AG from among its members as a kind of executive board. For many years, these were W. Schönborn († 2016), Th. Schröder († 1975), W. v. Tümping and D. Uhlmann († 2018) in changing composition, which ensured a high degree of continuity in the work.

The main concern of the working group was to enable an exchange of experience, i.e. to provide a platform for an interesting and challenging dispute between research, teaching and practice as well as with the neighbouring disciplines such as hydrochemistry, bacteriology, but also hydrology and meteorology. This became particularly important when, with the increasing and at least partially successful efforts at modelling, a consideration of water bodies from the point of view of biochemical “reactors” gained significance. Here, the representation of “classical” hydrobiology/limnology formed a certain antipole.

Thus, the activities of the Hydrobiology Working Group were traditionally oriented towards the scientific exchange of experience, information and communication about the results of research and practice. The interdisciplinary cooperation both of different own fields and with the hydrochemists and microbiologists was the focus of the activities and was of particular importance. In other words, limnology with the problems of auto-ecology as well as the material and energy balance of water bodies formed the classical focus of the work. However, topics from the fields of water and wastewater treatment technology and hygienic aspects of water and water body use were also given due consideration.

The membership of the Hydrobiology WG developed well. It finally had about 600 members, which can be explained by the fact that in the GDR

- at 2 universities: Dresden (previously Leipzig) and Rostock with its research centres Neunzehnhain⁵ and Zingst⁵ hydrobiologists were trained,
- in 2 large research institutes:
 - o Institute for Inland Fisheries Berlin Friedrichshagen⁴, which had its origins in the “Biological and Fisheries Experimental Station” at Müggelsee, founded in 1893, and
 - o Research Centre for Limnology¹⁸ of the Academy of Sciences of the GDR, Stechlin, OT Neuglobsow (founded in 1959, from 1972 Department of Environmental Microbiology (later: Ecology) of the Central Institute for Microbiology and Experimental Therapy (ZIMET) Jena, (today united in the Leibnitz Institute of Freshwater Ecology and Inland Fisheries),
- into 7 (later 5) river basin-related Water Management Directorates (WWD)¹⁹ as well as their
 - o 10 water authorities (Oberflussmeistereien, OFM) with laboratories of the State Water Inspectorate and
 - o 9 reservoir management offices (TSM), but also
- in the 15 nationally-owned water management companies (VEB WAB) together with their long-distance water companies and
- in 15 district hygiene institutes (BHI)

a larger number of hydrobiologists were active. Last but not least, there were dual memberships from the field of hydrochemistry as well as from microbiologists with aquatic fields of activity such as drinking and waste water, bathing water and waters.

Lecture events of the Hydrobiology Working Group took place both within the framework of the General Assemblies of the Biological Society and on independent dates, also as joint events with the Water Chemistry Section of the Chemical Society or the Institute for Hydrobiology of the Water Section of the Technical University of Dresden.

The topics of the scientific events (+ with international participation) illustrate the focus, spectrum and scope of the work of this specialist society:

- Ways to Record the Bioactivity of Waters (1964),
- Dissolved Matter in Waters: Their Analysis and Effects on Stream Biota (1970+),
- Current Problems in Water Quality Management (1972),
- Eutrophication and Water Protection (1973+),
- New Findings and Development Trends in Limnology and Water Quality Management (1974),
- Scientific Principles of the Quality Management of Dams and Reservoirs (1974),
- Conference on “Water Protection” (1978),
- Water use – scientific and technological aspects (1979),
- Aquatic Toxicology (1981+),
- Limnology of shallow waters (1986),
- Industrial Wastewater and Water Protection (1988),
- Continuing education courses “Hydrobiology for engineers in water pollution control” (1983, 1984, 1985, 1986, 1988 and 1990).

Printed abstracts of the lectures given at the own conferences were always available to all participants, which was often not an easy task for the secretary in terms of paper allotment and printing capacity. These abstracts were only made freely available in rare cases^{20, 21}. More or less detailed conference reports were published in *Limnologica* (Berlin), *Acta hydrochim. hydrobiol.* and/or in the *Mitteilungsblatt der Chemischen Gesellschaft* (Newsletter of the Chemical Society). The lectures of two conferences of particular importance could be published in their entirety: “Ways of recording the bioactivity of water bodies”²² and “Scientific principles of quality management of dams and reservoirs”²³. Today a matter of course, at that time a considerable effort in view of the low capacities.

All in all, the conferences always offered valuable up-to-date scientific content and overview as well as opportunities to exchange experiences. For example, the publication of the 23 lectures on quality management of dams and reservoirs, with its 180 pages, almost had the character of a textbook. On the other hand, the discussion on aquatic toxicology made clear the high summary sensitivity of the test methods as well as the aquatic ecosystems, but also showed the deficit in chemical analysis for individual substances.

The open scientific discussion was also important for special concerns and tasks. For example, for the problems of a classified summary presentation of water quality in the corresponding departmental standards^{24, 25} (Fig. 1, 2). Both standards were worked on by members of the working group after detailed discussion^{26, 27} also with hydrochemists, toxicologists and water users.

The TGL 22764 standard has the particular advantage that it allows not only a cartographic but also a detailed representation of the three feature groups in a maximum of six classes in longitudinal section (Fig. 2).

But the limnologists also contributed to standard works of limnological literature such as the investigation methods²⁸, and especially to the interface between limnology and engineering science²⁹ with their contributions after extensive internal discussion.

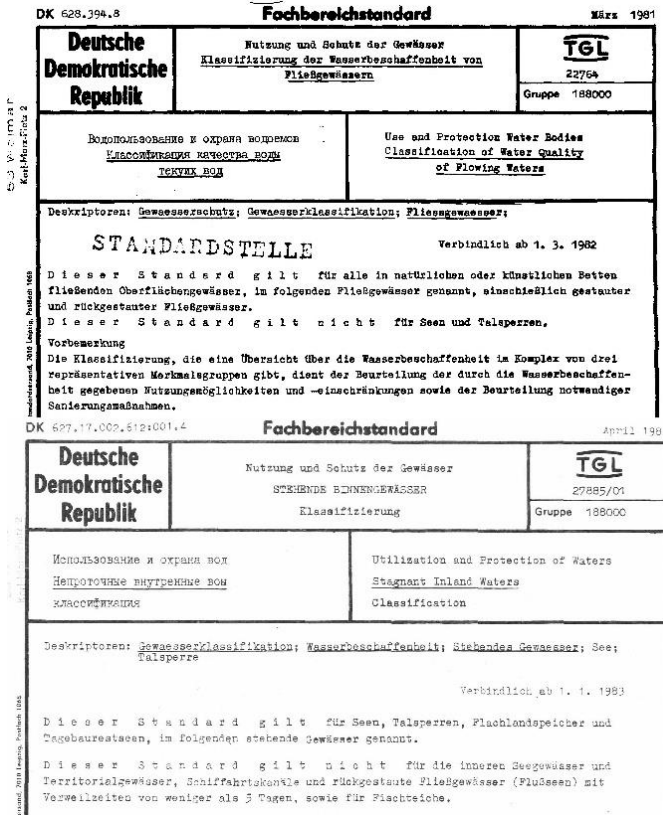


Fig. 1: The GDR-standards for the classification of the water quality

A special concern of the work of the Hydrobiology WG was also the further education through knowledge transfer to external parties, especially to engineers of the water management administration. Thus, in 1982, a programme and speakers for lectures, seminars, excursions and practical courses were compiled for two further training events “Hydrobiology for Engineers of Water Management Supervision” and held for the first time with the support of the WWD Magdeburg (H. Klapper († 2019), H. Rönicke) for 25 participants each at the Engineering School for Water Management in Magdeburg (H. Rogge).

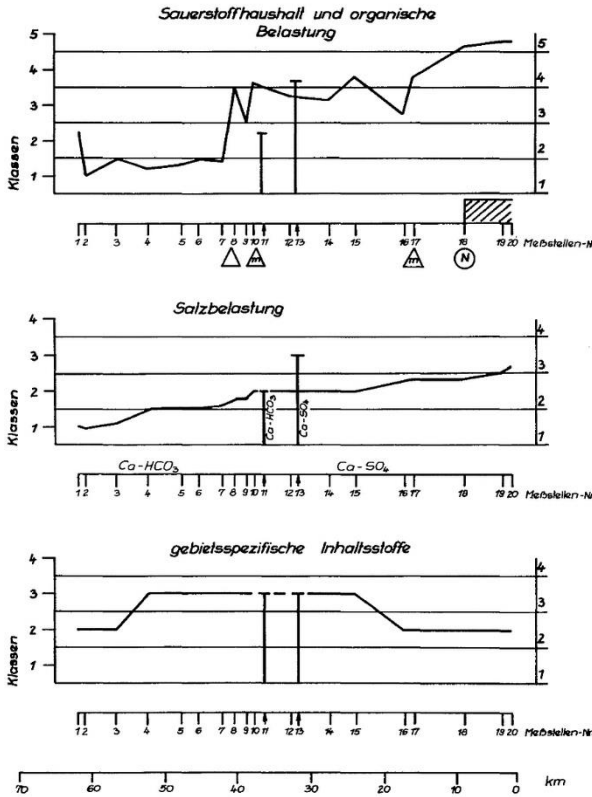


Fig. 2: Classification of a watercourse in longitudinal section as a graph of the three feature groups in a maximum of six classes of water quality

Besides the theory in lecture and seminar, the excursions to a watercourse, Lake Barleber II, which was still used for gravel extraction at that time, and one of the then rare biological sewage treatment plants were highlights of the collecting for the subsequent own microscopic observations with corresponding evaluation and assessment. Observing, collecting and observing with expert guidance and instruction provided the mainly “desk-bound” engineer with a better understanding of biological reports and statements. The participation was very lively and interested. It proved the increasing ecological interest in the field of engineering, so that the event was repeated nine times up to and including 1990 for a total of 275 participants.

An official international cooperation, for example with the professional societies from the so-called “non-socialist currency area” (NSW) was “of course” completely excluded. Even inviting individual specialist colleagues was a feat of strength and only possible with very detailed justifications in individual cases. But also

cooperation with colleagues from the so-called “socialist brother countries” (it was often said behind closed doors: “You have brothers, you look for friends”) proved



to be time-consuming and costly and with their specialist societies actually impossible. Even a cooperation with the Hydrobiological All-Union Society of the Soviet Union ran into the “sands of administration”. Intensive scientific exchange on a personal level was by no means desirable, despite all the brotherhood, because it could not be completely controlled.

Fig. 3: Acta Hydrochim. hydrobiol. 1 (1973)

One way to improve international cooperation and the perception of scientific work in the GDR was the decision of the Akademie-Verlag in 1972 to found a journal from the series “Fortschritte der Wasserchemie und ihrer Grenzgebiete” (Progress in Water Chemistry and its Border Areas), which had been published on behalf of the Chemical Society since 1964. The publishing house was able to convince the Biological Society of the GDR as the social sponsor for the “border areas”. One of the editors was therefore a member of the AG Hydrobiology. Thus, from 1973 onwards, the “Acta hydrochimica et hydrobiologica” appeared (Fig. 3), with the editors J. Kaeding († 2009), W. Panovsky (†) [followed by J. Bosholm (†),

W. Rummel (†) and W. v. Tümpling, the latter representing hydrobiology until 2006. Hydrobiology was also represented by 1/3 of the editorial board. The journal was able to establish itself well on the market due to its broad profile – for example, from auto-ecological notes on Tardigrades to water analysis in pressurized water reactors – and its interdisciplinary character from hydrochemists to limnologists and bacteriologists as well as hydrologists to wastewater engineers. The topics of the approximately 50 publications per year were about half hydrochemistry and water and wastewater technology and half hydrobiology and limnology. This offered applied limnology in the GDR in particular, as well as international colleagues, another well-distributed publication opportunity. Progress reports and literature reviews were important sources of information for colleagues in the otherwise largely isolated scientific landscape of the GDR, especially in the early years.

The annual accountability to the party comrades of the Socialist Unity Party of Germany (SED) in the section management of ecology sometimes turned out to be a bit tricky for the limnologist among the editors: Publications from the “brother” countries were welcomed, there were frown lines on the foreheads of authors from India, Sweden and Egypt, for example, and the origin of manuscripts from the FRG or even Rhodesia was followed by the admonition not to become a “platform of the class enemy”. A thick skin was needed. However, the cooperation among the editors and with the publishing house was good and scientifically purposeful at all times and in every question.

After the accession of the GDR under Article 23 of the Basic Law of the Federal Republic of Germany, the journal was taken over in 1991 by the Gesellschaft Deutscher Chemiker (Society of German Chemists), whose “Zeitschrift für Wasser- und Abwasser-Forschung” (Journal of Water and Wastewater Research) was merged with it when the publishing house changed to Wiley-VCH in 1992. One of the reasons that *Acta* continued to be published is probably that the journal was one of the few GDR journals to be listed in Current Contents and was thus internationally recognized and noticed. Since 2007, it is published with a different editor under the new title “Clean – Soil, Air, Water”.

However, this successful activity also resulted in personal experiences and grotesque situations. They show how “complicated” and personally problematic scientific communication can be under the conditions of a “dictatorship of the working class”:

- At the beginning of a Dresden meeting with the water chemists, a cultural offer was still missing. So a biologist went in search of an “event” that was still feasible in the short time available: an organ concert seemed a possible solution. He was received by Professor Collum, the organist of the Kreuzkirche for many years, at the conservatory, and after a stimulating conversation about the “special audience” he was promised an evening organ concert with explanations – it turned out to be a great, beautiful evening

with also “worldly” music and humorous explanations by the well-known organist.

However, this successful “hussar’s ride” met with fierce criticism from the SED party comrades because of the “ecclesiastical” concert. Even the reference to the fact that organs are located there could not exonerate “the traitor to the socialist cause” – including reports to the ministry and superiors.

- For the symposium on eutrophication and water protection, the expert colleague responsible for the preparation wrote in the invitation: simultaneous translation from the lecture languages German, English and Russian – completely non-discriminatory in alphabetical order. This was thoroughly resented by his ministry with reference to a drastic complaint by colleagues from the Soviet Hydrobiological All-Union Society.

This claim seemed so dubious that the colleague apologized loudly to his official Soviet colleagues within earshot of his ministry representatives for his unforgivable misstep. The colleagues’ response, as expected, was that no criticism whatsoever had been made or was to be made from their side. On the contrary, they praised the colleague responsible for the good organisation, including simultaneous translation, etc., etc. The consequence for the colleague was removal from responsibility for the cooperation agreement between the Hydrobiology Working Group and the Hydrobiological All-Union Society of the Soviet Union and extensive exclusion from international cooperation.

- Question: to a Russian colleague about a missing Leningrad colleague.

Answer: “Unfortunately he is ill”.

Reaction: Dismayed silence in the group of questioners.

Follow-up: “The colleague is really ill – it is not a political illness”.

Only then is the interviewee instructed to send warm greetings and get-well wishes to the sick colleague.

- A colleague was offered the foreign vice-presidency of the Academy of Environmental Biology, India – his expert opinions and advice were obviously considered very helpful. “Of course” he does not receive permission from his ministry and is supposed to excuse himself with illness. He does not do that, but answers truthfully that the administration of his socialist country does not give him permission for such an office, without which he has no possibility to be effective. Thus he is appointed Life Fellow³⁰ by the Academy.

Such examples are evidence of the unworthy behaviour of the absolutist ruling and opinionated SED towards scientists who – for whatever reason – seemed inconvenient to them.

In 1990, the idea of transforming the Biological Society into a registered association failed, as expected, because of the members' complete lack of interest in such a construct. Here, too, the complete distance between political leadership and active scientific members became apparent. Incidentally, it would not have worked legally either, because a "Biological Society 'Linné' Verein für Aquarien- und Naturkunde, Hannover e.V." already existed in Hanover since 1934, originating from the "Verein für Aquarien- und Terrarienfreunde zu Hannover"³¹ founded in 1897.

In reunified Germany, the dissolution of the GDR Biological Society was logical and final with the liquidation of the Academy of Sciences of the GDR. The approx. 200 limnologically active and interested members of the Hydrobiology Working Group joined the German Society for Limnology (DGL) founded in Hamburg in 1984.

All in all, the small specialist society of hydrobiologists in the Biological Society of the GDR made good and important contributions to the scientific exchange of ideas among limnologists and to the dissemination of ecological thinking under the given and isolated conditions in the 25 years of its existence. With its form of interdisciplinary cooperation and continuing education, the Hydrobiology Working Group has created a good tradition of scientific information and communication. With the transition of its members to the German Society for Limnology, founded in 1984, this has continued under changed and better conditions until today.

2 German Society for Limnology e. V. (DGL)

In contrast to the Stalinist development and political structure in the eastern part of Germany, the post-war development in the western occupation zones and the later Federal Republic followed the democratic ideas of the occupying powers there. The aim was to build a democratic German state with a federal structure. This meant the restoration of all democratic rights and duties, including the right of free association, for example within the framework of the law on associations. For the scientific societies, this meant maintaining or re-establishing them. Thus in 1948, with the Congress in Zurich, the Societas Internationalis Limnologiae (SIL) resumed its work as a scientific society for limnology with its German section (IVL) after a nine-year interruption.

A disadvantage in a federal structure is that water bodies do not adhere to national borders. Thus, in 1956, the Federal/State Working Group on Water (LAWA)³² was formed as an association of the ministries responsible for water management and law in the federal states of the Federal Republic of Germany and a working body of the Conference of Environment Ministers (UMK).

For limnological practice, the federal structure created a central "gap" that the SIL/IVL was unable to fill. Thus, in October 1982, at the meeting of the West German members of SIL/IVL in Langenargen on Lake Constance³³ – thunder rolling like the thunderstorm in front of the meeting room – it was complained that the

problems and concerns of limnologists and hydrobiologists in practice hardly found a place at the limnology meetings of SIL/IVL. Therefore, the foundation of a working group “Applied Limnology” was proposed. The sometimes passionate discussion led to Professors Caspers († 1998), Elster († 2001), Lillelund († 2018), Ohle († 1987) and Overbeck († 2013) as well as Drs. Steinberg and Schmitz forming the organising committee for the foundation of a new society called “Deutsche Gesellschaft für Limnologie” (DGL) (German Society for Limnology) (Fig. 4). This was the birth of the DGL. At the Hamburg meeting of West German limnologists in October 1984, the 103 members present then founded the DGL, which was entered in the Hamburg register of associations in March 1986.

At the joint general meeting of the West German members of SIL/IVL and DGL

DGL
DEUTSCHE GESELLSCHAFT
FÜR LIMNOLOGIE e. V.



in Karlsruhe in 1986, the first election took place. Dr. G. Friedrich was confirmed as President, Prof. J. Overbeck as Vice-President, Prof. H. Kausch († 2019) as Treasurer and Dr. A. Hamm as Secretary. In accordance with the statutes, the President and Vice-President belong to the different “camps” of predominantly theoretical or applied limnology.

Fig. 4: Signet of the DGL

Water and water bodies constitute one of the greatest environmental problems – also in geopolitical terms. From limnology as the science of inland waters as ecosystems, their biological-ecological structure, their material and energy balance, the tasks and objectives in the statutes of the DGL³⁴ result for the DGL as a scientific professional society for all those active in the field of limnology and its fields of application:

To promote and support

- the scientific research of inland waters,
- the education of students and young scientists,
- the further training of limnologists in their professional practice,
- the exchange of experience among limnologists,
- the improvement of the protection of water bodies as a component of the human environment and for their own sake,
- to enforce the observance of ecological interrelations in water management and water protection.

The following serve to achieve this goal

- to promote scientific work in the field of limnology, including the support of research and development projects in the field of limnology,
- to promote the limnological education and training at universities, institutes and institutions, especially for limnologists working in the field,
- promotion of the exchange of information among the members, among other things through the general meetings, scientific conferences, seminars and workshops,
- formation of working groups to deal with special areas of expertise and issues,
- issuing expert opinions on the condition and development of water bodies, as well as on measures to prevent or eliminate damage to water bodies,
- collaboration on legislative projects, such as ordinances, standards and the like,
- maintaining relations with authorities, associations, expert bodies and committees, as well as with national and international, domestic and foreign scientific organisations related to the subject, whereby a special relationship exists with SIL/IVL, because it represents limnology internationally.

With these goals, the DGL developed very well as a scientific professional and working society. Its annual conferences, mostly organised jointly with the German and Austrian sections of SIL/IVL, attracted great interest, which is also reflected in the growth in membership with up to 100 new members each year. The increasing participation in the special working groups, e.g. for

- quarry ponds,
- the groundwater habitat,
- independent biologists,
- taxonomy for the practice, etc.

Some of these have resulted in publications that are regarded as scientific standards and are generally accepted as such. The German National Library lists several titles in this regard³⁵⁻⁴¹.

Accordingly, the DGL, through its Presidium, has become a respected advisor in the relevant ministries and in the German Research Foundation, as well as in various scientific academies. Prof. Brigitte Nixdorf, a member of the DGL Presidium, since 2001 is a member of the National Academy of Sciences Leopoldina⁴².

3 The now all-German Society for Limnology

The peaceful revolution of 1989 and the (re)unification of Germany also gave the DGL new opportunities.

As early as May 1990, a first conference on the ecological assessment of flowing waters⁴³ (Fig. 5) took place at the Jugendburg Ludwigstein (Ludwigstein Youth Castle) on the Werra near Witzzenhausen, for which regulations and standards, e.g. for

water quality maps, applied “on both sides”. Ludwigstein had a special attraction for this conference: within sight of Ludwigstein stands the ruin of the Hanstein castle near the eastern bank of the Werra. It was previously part of the GDR’s border security, which has since been dissolved.



Fig. 5: Ludwigstein conference proceedings

Such a meeting was also necessary for a memorable reason: In the GDR, only a water quality map from 1969 in Wetzel⁴⁴ was publicly available, so that for the first all-German quality map⁴⁵, an agreement on methodology and presentation had to be reached among limnologists (Fig. 6).

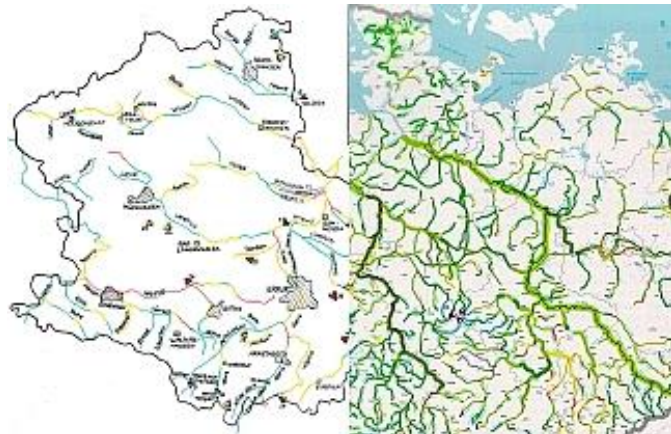


Fig. 6: Maps of biological water quality

Left: District of Erfurt 1990

Right: Detail of the map of the Federal Environment Agency 1995

The participation of Central German limnologists was also high at the annual conference in Essen in 1990. An annual conference in Thuringia was planned for 1993, but failed due to the still completely missing prerequisites both in terms of accommodation and conference rooms for about 400 participants. Thus the 1993 annual meeting was held in Coburg, and the Thuringian colleagues organized a full-day excursion to the system of drinking water dams in the Thuringian Forest as a source of long-distance water supply. The excursion ended with a cultural monument of “water-related” industry: the Tobiashammer, a large water-powered forge hammer plant in Ohrdruf below the Ohratal Sperre, which dates back to 1482. Still driven by four waterwheels, the display facility includes five working drop hammers, a rolling mill, punching mill and grinding mill, as well as annealing furnaces.

Since then, the regular annual meetings have been held in all parts of Germany. Here they offer the participants insights into the research and working areas of the professional colleagues there as well as into the special landscapes.

Thus the now truly and overall German Society for Limnology continues to develop pleasingly. Its membership has exceeded 1000. There are currently nine active working groups:

- Chironomids as Bioindicators,
- Neozoa,
- palaeolimnology,
- quality assurance,
- springs and groundwater,
- lakeshores and wetlands
- Independent limnologists,
- Diving in Limnology,
- Taxonomy for Practice – Macrozoobenthos.

The promotion of young researchers includes junior researcher and poster prizes but also travel grants, and the annual conferences have each had a central theme since 2013, without, however, excluding free topics, especially from the practice.

Last but not least, the DGL offers a wide range of publications beyond the regular conference proceedings with the publications of the:

- Working aids,
- Further special publications as

valuable working materials for limnologists, and

- with the publication of the 15 volumes of the series “Limnologie aktuell” and as well as
- its participation in the scientific journal *Limnologica* and standard works of technical literature

a valuable external presentation of the importance of limnology in research and practice.

A now full-time office and a successful internet presence (<https://www.dgl-ev.de/>) round off the image of this scientific society today. It will continue to develop successfully with the far-reaching important perspectives of its branch of science.

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