

# The Future of the International Society for Theoretical and Applied Limnology

## Final Report of the Futures Committee

### Introduction

The International Limnological Society (SIL) was founded by a small group of people led by Auguste Thienemann and Einar Naumann in 1922. It was consolidated by a set of Statutes (Appendix 1), which have been slightly modified under the provisions of Statute 21 over the years. It is sensible for any scientific society to assess its position from time to time, especially in periods of considerable change in the wider world. The SIL Futures Committee was set up in May 2004 by the President of SIL, Prof. G.E. Likens and charged with this task. This document constitutes its report.

### The Present

SIL has, on the face of it, changed relatively little since its foundation in 1922, except in numbers. It has held regular Congresses and produced Proceedings (*Verhandlungen*) from these. It has continued a tradition of Contributions (*Mitteilungen*,) though these have been fewer in recent years. It has established working groups and a newsletter, SIL News. In recent decades, without great publicity, however, it has also made several innovative moves to promote freshwater science in developing countries and has a number of schemes to aid disadvantaged scientists and students in poorer countries. Indeed this is a particular distinguishing feature of it.

About 50 students and about half the total membership outside the 'western technological' world are supported by a 'free' subscription in this way. SIL gives fellowships, based on the income from funds left by Prof. Tonolli to enhance the research of students in developing countries and about 70 have been awarded hitherto. SIL also supports students in training programmes for the developing world and has promoted and funded teaching manuals, a series of books on Limnology of Developing Countries and a Directory of freshwater scientists of the developing world.

Open-ended requests, to members of the committee and national representatives, for views on how SIL should meet a changing future have produced agenda of concerns. These broadly divide into: Membership, Finances and Administration; Proceedings and other scientific publishing; SILNews and membership communications; Scientific role; and International role. The following sections raise these issues and discuss possible responses. The Committee's recommendations conclude the document.

# Membership

Membership rose steadily and near exponentially between 1922, the year of foundation and the 1970s but has been in dynamic equilibrium at around 3000 since around 1975. Numbers have been essentially static for thirty years. Institutional membership increased markedly after 1981 and now numbers 172 cf 118 in 1981 and single figures prior to that. Institutional membership is in decline, however from the peak of 234 in 1986. Retired membership overall is steady (about 5%). Student membership is relatively low (also about 5%, except in the notable exception of France which has 35 student members to 110 ordinary members (24%)). This appears to reflect the policy of the French national limnological society to support its own student members to attend international congresses.

The position in different countries varies, with some formerly vigorous national memberships dwindling or static (UK, Canada, Germany, USA) but others (France, Austria) healthy. The overall flat trend in membership at present is a cause for concern however, especially as it undoubtedly represents a reducing proportion of the total world freshwater science community. Many potential members are not actual members and we need to establish why this may be so. Is it because we provide too few or the wrong sort of membership benefits or is it because we are a less aggressive organisation than some national organisations in freshwater science that provide comprehensively and alternatively for the needs of freshwater science?

Dynamic equilibrium is fine so long as it is both dynamic and equilibril. There are signs, however, that the plateau of the past thirty years may be approaching a downturn. We do need to maintain at least our present size or become a little larger to produce the income necessary for our present activities let alone any expansion in their scope or intensity. Increasing membership benefits likely to retain members and increase membership a little. At present most of the income comes from Europe and North America and is used to maintain the membership from elsewhere. The ‘non western’ membership is what qualitatively distinguishes SIL and directly and indirectly (through training courses etc) SIL has sought to support this key element and, if it is to strengthen its niche, should probably be seeking to expand these activities. This will depend on a willingness on the part of North American and European members in particular to see part of their subscriptions not returned in direct personal benefits.

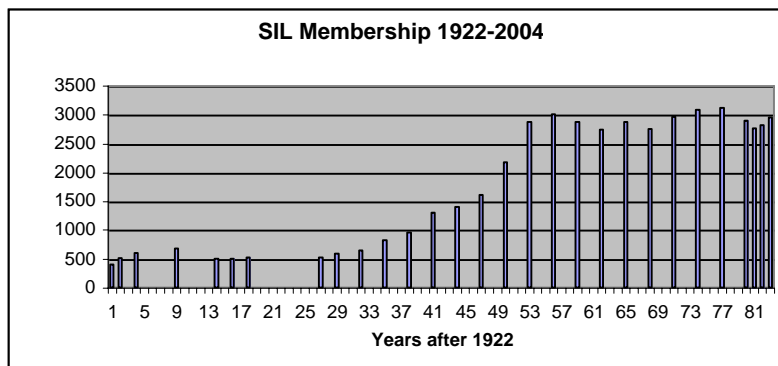


Fig. 1 Trend in total membership of SIL

## Finances and Administration

### *Finance*

SIL retains positive balances in all respects and is financially very well managed. A little over half of SIL's income comes from membership subscriptions, the remainder from several smaller sources (Table 1). Income has been around half a million US dollars per triennium for nearly thirty years. Effectively this means a decline in income because of inflation. Major deviations have come from the fluctuations in currency exchange rates. Costs of servicing the membership by conventional means of publication are high. The last Proceedings cost around 300 000 US dollars, accounting for pretty well all the subscription income. The latest triennium of newsletters cost about US\$14K per annum to print and with postage and editorial support accounted for a sizable minority, perhaps 10% of the income. Library subscriptions to the Society are a bargain, having been only twice those of individual membership until 2005 and even then only about three times higher.

Table 1 Sources of income (%) and items of expenditure (%) for the past five triennia (1989-2004). In this period triennial income averaged \$541K and expenditure \$558K.

Income	(%)	Expenditure	(%)
Subscriptions	54.0	Proceedings	52.7
Sales of pubns	15.6	Communications	1.2
Incoming grants	4.8	Books	1.7
Page charges	9.9	Occas pubns	0.1
Interest/dividends	9.2	SIL News	3.3
Endowment	1.1	Postage	2.9
Miscellaneous	0.2	Travel/ Congress	2.1
Currency exch	5.2	Honoraria	0.8
		Grants given	6.6
		Bank charges	1.8
		Secretarial/ed	13.3
		Office/printing	2.7
		Currency exch	8.9
		Misc	1.7

Administration of the Society costs a modest amount in absolute terms, mostly because we have no paid administrators, only part-time assistance to the General Secretary/Treasurer. Overall, our expenditure spreads around many small categories beyond the Proceedings (52.7%) and secretarial services (13.3%) (Table 1). SIL is not out of line with other, at least other North American, comparable societies but has among the lowest incomes from library subscriptions.

Table 2 Comparative cost statistics among several Societies. Data other than for SIL are as given by ASLO (which is thanked for supplying this information) and probably not always strictly comparable. Values are percentages of income or expenditure.

Item	Income members	Income inst subs	Journal spend	Newsletter spend	Admin spend	Membership	Revenue/member
Am Soc Micro	2.1	50.2	43.4	3.6	?	42000	899
ESA	11	49	29	?	38	7600	491
Soc Wet Sci	68	13	51		37	4000	66
<b>ASLO</b>	<b>29</b>	<b>31</b>	<b>42</b>	<b>5</b>	<b>8</b>	<b>3900</b>	<b>215</b>
SIL	45	9	55.7	<10	<16	2959	213
Est Res Found	25	26	32	4	37	2000	220
Phyc Soc Am	73.4		74	11	10.3+	2000	187
NABS	28	30	30	19	17	1696	68

### *Nature of the Administration*

SIL has traditionally been administered by a very small number of dedicated volunteers. Its income and the nature of its foundation have led to this. The income of most scientific societies is boosted by institutional subscriptions for journals that are ten to twenty or more times greater. This income often allows paid administrators to handle finances, membership details and publication. The British Ecological Society, for example, with only 33% more members than SIL but four mainline journals supported by commercial publishers, has a permanent staff of seven people and owns office space for them in central London.

Currently we provide one part-time assistantship to support administrative activities. Our present subscriptions are very modest but affordable. If they increased much we might lose membership. Only by increasing membership benefits could we increase them. Much income could be released by a different publication strategy.

### *Continuity of Administration*

SIL has formal provision for guaranteeing continuity with limited tenure in its officers in the cases of Presidents and Executive Vice-Presidents. There is otherwise no limitation of tenure and so successive General Secretaries - Treasurers have had long tenure, not least the late Robert Wetzel who faithfully served for around thirty-five years. Clearly there is a need to create a system for maintaining succession which minimises the risk of the Society suddenly lacking experienced officers through retirement or ill-health. We may need also to establish more predictable systems of determining Bulletin editors and Proceedings editors with provision for gaining experience before taking over these roles. The argument for a combined post of General Secretary-Treasurer is that we can afford only one part-time assistant who clearly can be in only one place but the post is onerous and may be difficult to fill in the future given the increasing demands of other professional activities. The risks can be minimised, however, by appointment

of a Deputy General Secretary/Treasurer with some mutually agreed division of responsibilities, serviced by the single part-time assistant. The existing nominating committee is clearly the appropriate 'search committee' for obtaining nominations for these posts.

## **The Proceedings**

SIL's main publication is the triennial Proceedings. The Proceedings perhaps pose the biggest questions. In an age less obsessed by league tables, it was a mainline publication and many classic papers have been published in it. That situation has changed, not least because there are now very many journals of increasing specialisation and because of the commercial partnerships which many learned societies have formed with publishers, leading to professional advice on marketing. This has included increasing the frequency of publication, the size of the journals, the attractiveness of the covers and layout, the expenditure on advertising and marketing, and the financial support of editors and editorial assistants. Inevitably, in a scientific world where citation indices are widely used by funding bodies, our Proceedings is beginning to look like a steady old carthorse in a stable of Arab stallions. Its format has not changed; its triennial publication is a disadvantage; it is not listed in citation tables, and it receives little professional publishing support. It probably costs less to maintain per paper than the stallions, but it also loses the race.

In its defence, it has provided a lightly reviewed medium for young and inexperienced scientists from the third world to cut their teeth and gain publication experience without the wounding refusals that submission of first papers to the major journals might bring, and a location for preliminary results and small pieces of work from the rest of us. It is tacitly acknowledged that the most important and interesting work is not published in it, yet the Baldi and Plenary lectures can sometimes be seminal. It is, however, treated as a conference proceedings rather than a mainline journal and does not appear in lists of impact factors. It has changed from the cement of the freshwater world that it used to be, to perhaps yet another thick book that is shelved rather than read.

In several respects we therefore need to review our publication policy. The Proceedings is currently not a major asset and indeed is a major expense. There appears to be decreasing support for maintenance of the Proceedings in its present form but there is also a strong general feeling that SIL needs to maintain some form of publication, be it a much cheaper electronic Proceedings (web, cd) or an orthodox Journal. Members, however currently may have a right to publish their work in the Proceedings, according to Statute 18 (Appendix 1) and such a right has been re-stated in the new mission statement of the Association. The Statute presupposes continuation of the Proceedings, but Statutes can be revised by agreement of the Association at a General Assembly. This provision was perhaps agreed at a time when limnological journals were sparse; this is no longer the case.

There are several possibilities for a future publication policy. To do nothing is probably to see the Proceedings dwindle to no more than yet another conference volume of only ephemeral value. In their present form and financing they cannot compete with other, frequently produced journals. For most of us they are not needed as a publication outlet and we do not publish our best work in them. For others, particularly in the poorer countries they are a teething ground, but

increasingly scientific standards are moving upwards everywhere and funding agencies almost everywhere are adopting similar procedures to those in Europe, Japan, Australasia and North America.

A second option is to publish electronically the whole Proceedings, and a much slimmer printed volume of selected papers chosen by an editorial committee (which could lead to considerable rancour). A third option is to cease printed publication of the Proceedings altogether and start a new conventional journal. There then arises its specific niche in a community of Journals that is already well-populated. A fourth is to divert funds into subsidising workshops from which special issues of other journals are produced, with prominent publicity to SIL. Such workshops would have to be international in attendance and subject matter and not be used simply as a new means of funding essentially local interests in North America or Europe. A sub-option is to publish, as special issues, symposia gathered from within the Congress presentations.

Establishment of a completely new Journal, whilst continuing some form of the Proceedings, would cost a great deal and would probably not be possible without partnership with a commercial publisher and aggressive marketing. We do not have the reserves to withstand the losses that most new Journals experience for several years after their birth. Half our modest reserves (totalling about the same as one triennium of income) in any case are inaccessible, being tied by the conditions of the Tonolli fund. Subscriptions would have to increase, especially library subscriptions and if SIL's niche is to remain a truly international one, embracing more than the north temperate zone, such a move might start to exclude the developing world, which can barely afford even a few mainline journals.

There are now more Journals than ever before and we have to ask whether more journals are a good thing. Perhaps we need fewer journals and a culture of greater innovation and lesser repetition. Most papers are never cited. Do we really need to keep publishing more and more papers that are not read? In a changing world, it may be that a flexible multiple strategy of several modest outlets would be acceptable: a strategy of not putting all the eggs in one basket.

The whole nature of publishing is also very much in flux at the moment. Electronic publication has been discussed in the past but rejected hitherto partly for the good reasons that computer equipment in many countries has been insufficient, partly owing to the greater ease of handling and familiarity of the printed page. Much of the cost of publication is now in paper, and distribution of it rather than in typesetting. Computing equipment is now becoming more widely available however and resistance to electronic publication may be a function of age. A younger generation has accepted it more readily than the older. Electronic or not, future models of publication are uncertain at present. One possible scenario is a complete reversal of the present one. The current model is for scientists to publish, without payment, in paper or electronic journals owned by companies or societies with the latter acquiring the copyright and the profits following sale of the journals to libraries and individuals, including the authors of the papers.

Some funding foundations are encouraging new journals in which scientists pay to place the paper, which is peer-reviewed in the normal way, but in which the paper is then entirely free to all, on the internet. Costs of publication accrue to individual scientists through personal or grant payments so overall the losers are the scientific societies and commercial publishers. The latter

have been important innovators in publication techniques and in widening marketing even for learned societies with whom they sometimes work in partnership. Scientific societies often use their profits for student support, subsidy of meetings, outreach work and other entirely laudable endeavours. Their income could dwindle to a fee for providing the peer-review structure. We can predict with confidence that the system for publication will change, but not exactly how.

## **The Bulletin; SIL News**

SIL News is the single way that we keep contact with the membership, apart from a circular for certain official matters like the annual subscription levels. This could easily be incorporated into SILNews. The latter is produced twice each year and to a budget which allows only a basic format with few embellishments of colour and only minimal editorial support. Successive editors have found it difficult to obtain copy from the membership. Complete movement to electronic format would release funds, now used in distribution and printing costs. On the other hand, in the morass of documents and e-mails that daily wear our time and patience, electronic documents are less likely to be picked up and read than immediately attractive paper documents.

Do we need to mobilise resources to increase the attractiveness of SILNews? It is currently modest compared with the Bulletins of other Societies and this reflects the resources we are currently putting into it. It probably accounts in total for less than 10% of our income. More could be done by moving entirely to electronic format, or, if paper copy still holds sway, by moving resources from the Proceedings, or by increasing subscriptions. In general opinion seems to be that we might have to move to electronic format but there is no overwhelming enthusiasm for this. The tenor appears to be one of regret should this happen. There is however, a need to boost contributions, particularly those of interest to younger members. SIL News effectively holds the membership together between Congresses.

## **International Role in Science**

SIL is the only truly international society for freshwater. The Freshwater Biological Association is the next most representative society but has a strongly British flavour. It is making overtures within Europe to establish a formal European Society but these have not yet met with great enthusiasm although vigorous European freshwater conferences have been established as a result of this initiative. Similarly the American Society for Limnology and Oceanography, because it now has a substantial membership outside North America, is contemplating a more international role. Reaching out from a strong national or continental base, however, is unlikely to be universally acceptable, especially when global hegemonies in trade and economics are increasingly resented. SIL has a truly non-aligned flavour and this is something that is precious and on which we should build. To do so however, means that SIL may have to reconsider or re-establish its niche.

Many scientific societies are currently in a parlous state as their recruitment falls because of changing emphases in science. The keys to survival appear to be (i) not to be too specialised and to embrace new trends and (ii) to find or hold on to a niche unoccupied by others. SIL is well placed in each of these but perhaps we need to exploit the latter especially. SIL is better placed to

take an international lead than any national society. SIL would be in a very good position to start to act as a linking organisation, perhaps by offering reciprocal reduced membership fees to members of other organisations in return for increased membership benefits. In political and survival terms, the increased size and influence would be valuable so long as SIL was seen to be non-aligned, unambitious for simply wealth or power and clearly facilitating links between people concerned with freshwaters in all countries. It has this role presently. The issue is to find ways of amplifying the role. Should we be immediately making approaches to explore these issues with ASLO and the FBA and perhaps other groups? There is a perception that SIL is much more lake orientated than stream orientated and much more 'theoreticae' than 'applicatae'. What exactly should we do about these issues? There are even questions about SIL's name. It is alleged that limnology is no longer a widely known or used term.

We might increase the frequency of smaller meetings and workshops than the Congresses, on more limited topic areas, with subsidies for organisation. We might even produce joint meetings and bulletins with other societies. We might establish a more comprehensive web site with links to those of other organisations in freshwater science, though we should be clear in all cases what we are doing it for.

## **International Role in Global and Human Affairs**

Governments, it appears, are rarely influenced by scientists nearly as much as by economists. Current political philosophies are undoubtedly leading to increasingly severe damage to freshwater ecosystems and to water resources. There are, of course, local exceptions, bright spots in a generally grey picture, but many freshwater scientists are pessimistic rather than optimistic, at least in private. Where the damage has already manifestly been done, in the 'western world', there has been some attempt at reversal. Coincidentally (perhaps we are not as uninfluential as we think) these are the areas where new legislation is beginning to help and where we have most membership (Europe 57.5%, North America 22.5%). Of the remaining 20%, Brazil, Republic of South Africa and Japan dominate the totals for South America (5.3%), Africa (3.1%) and Asia (7.6%). Australasia has 4%.

Most countries are barely represented in our membership and it is in these countries that problems with water are increasing or will increase with projected global changes. Notably we have currently only 6 members from the Peoples' Republic of China and 1 from Taiwan. Korea has rather more (24). Many of our memberships in Africa are supported by external funds and are fluid. What can we do to increase membership and therefore potential influence in these countries?

What then should we do? Resolutions passed at Congresses have sometimes been effective, for example in relation to eutrophication issues in the 1960s and 1970s but often fall on deaf political ears. Documents, either electronic or paper disappear like stars in the morning. The way to influence governments is to use the same tactics as other pressure groups: the press, television and radio, active protest. Scientific societies rarely do these well if at all. The scientific establishment, by pretending a neutral view is perhaps automatically aligned with the status quo.

But nobody in politics is unaligned and no politician is naïve enough to believe in neutrality in

others. SIL will have no influence in international water affairs by being passive and expecting the world to beat a path to its door. If it wishes such a role – and we must ask whether it really does want such a role - (some members would be strongly opposed to any sort of lobbying), what should it do? Are our resources better used in targeting powerful western influences in countries where there are already well organised pressure groups, or in building informed infrastructure elsewhere in the expectation that well trained local nationals will have greater influence on their own governments in the long term. Perhaps we should increase greatly our investment in the science of these countries through more student support, more workshops, and more training courses. There are bodies like the Organisation for Tropical Studies and the Tropical Biology Association, which already have infrastructures through which we could do this without having to establish institutions of our own.

## Summary

The present situation of SIL in a scientific world that is changing, but not entirely predictably, may be parlous. SIL is not as attractive as it was for publishing scientists. Its administrative base is at risk. Its finances are fully stretched. Its membership services are minimal. And it has tended perhaps to be over-conservative. These are its weaknesses. Its strengths are the great affection in which it is held by many of its members, possibly to some extent because of its non-aggressive, highly tolerant nature, its current financial position which has balanced its aspirations with its limited income and its unique position as a truly international organisation. It is so little committed to contracts with commercial publishers that it can adjust to new trends in publishing with very little disruption.

The threats to it are that it might dwindle in size and income because its members turn their attentions more to stronger national societies unless they receive very tangible membership benefits. Its Proceedings may become completely ignored because of the competition from other journals. The opportunities available are those conferred by being truly international in an increasingly fraught world, the willingness of people to attend a triennial congress, potentially in interesting locations which give the opportunity to widen field experience outside the well-trodden paths of western Europe and North America, and the current modesty of its commitments, which allow the possibilities of change without much pain, providing the will is there.

Little is achievable without well thought through, definite plans with monitorable targets. The role of the Futures Committee has been to suggest such a trajectory. Its recommendations are given in the next section.

## Proposals

**Proposal 1.** Paper publication of the *Verhandlungen* should be abandoned and replaced by electronic publication on the Web site with unrestricted access after two years and production of a CD for the membership. Editorial and reviewing procedures established for the Lahti Congress should be maintained.

**Proposal 2.** The Association should establish, in partnership with a commercial publisher, an electronic journal, finding its niche in contemporary reviews of significant topics in freshwater science. The Plenaries/special lectures from the Congresses would be published in it and would be refereed to the standards of the existing mainline journals. Costs would be balanced by library sales and membership subscriptions. The Journal would be accessible by members only for two years (but by others for an individual paper fee) then become freely accessible after two years. Publication would be initially two parts per year. Approaches should be made to several publishers in the first instance and a journal consultant should be retained to give advice.

**Proposal 3.** SIL News will continue to be produced in a paper version and also electronically with the situation reviewed every three years. A panel of national and student representatives will be recruited to feed material to the editor on an agreed regular basis.

**Proposal 4.** Administration of the Association should be responsibility of a larger group of people. There should be a President, a Vice-president with overall responsibility for meetings and liaison with other Societies, a Vice-President with overall responsibility for publications, a Vice-President responsible for international affairs (particularly promotion of Third World support), a General Secretary/ Treasurer and a Deputy General Secretary/Treasurer with mutually agreed division of tasks. There should be separate editors of the Proceedings, the proposed Journal and SIL News. Any honoraria should continue to be token, to allow employment of a part-time paid web manager, responsible for the mechanics of putting all publications on the web from a central office. The existing nominating committee should have the role of finding candidates to fill these posts, making whatever consultations are appropriate with existing officers and national representatives

**Proposal 5.** A web forum should be established for members, particularly younger members, who are the most likely to use it. This should be run by a small committee of young and student members, who will determine its nature and function, with technical assistance from the web manager.

**Proposal 6.** Linkages with other freshwater societies should be actively pursued with a view to bargain subscriptions, especially for student and third world applicants, mutual sponsorship of workshops and meetings between triennial congresses, with the aim of one such meeting at least per year, including the Congress. Such meetings should be identifiable as SIL/partner meetings. Care must be taken in the choice of such societies to approach so as to avoid any suggestion of take-over in either direction.

**Proposal 7.** There should be reconsideration of the nature of Congresses, to ensure that costs remain within the purview of student members, and that student activities are specially arranged and promoted. As long as sufficient lead-time is given to organizers, there is no reason that Congresses should not become biennial but at present there seems to be a preference for retaining trienniality. There seems no good reason to retain rigidly the present format, and flexibility in format, especially to reduce costs, should be given to organisers

**Proposal 8.** Dependent on costings for Journals and web management, attention should be given to devoting a greater proportion of subscriptions to support of third world research and establishment of an infrastructure for environmental advocacy among third world members.

**Proposal 10.** This report and these proposals shall be presented for comment to the International Committee, through the President, within six months and a final version prepared by the Futures Committee by March 2006 for circulation through SIL news to the membership. The proposals should then be voted upon, including necessary amendments to the Statutes at the 2007 Congress. In the meantime, the President shall appoint a business committee to examine the financial implications of the proposals if passed and discharge the Futures Committee of its obligations.

## Appendix 1

### Statutes of the Societas Internationalis Limnologiae Theoreticae et Applicatae

#### **I. Name**

§. 1. The official name of the organization shall be the Societas Internationalis Limnologiae Theoreticae et Applicatae and shall be abbreviated to SIL.

#### **II. Aim**

§. 2. The aim of SIL shall be the advancement of limnology and its applications.

#### **III. Activities**

§. 3. This aim shall be achieved by:

- a) Congresses consisting of lectures, discussions, exhibits, excursions, and other scientific activities.
- b) Publication of congress *Proceedings* and other material as appropriate.
- c) Encouragement and sponsorship of symposia, meetings, and working groups.
- d) Provision of financial assistance as practicable for limnological activities.
- e) Affiliation of organizations embracing similar aims and interests.

#### **IV. Membership and dues**

§. 4. There shall be eight categories of membership – Ordinary, Associate, Honorary, Life, Emeritus, Student, Affiliate, and Family – all of which shall have full privileges in SIL including the right of one vote at a General Assembly attended.

- a) *Ordinary Members* are individuals interested in limnology.
- b) *Associate Members* are scientific institutes, societies, and other corporate bodies. Each shall have the right to be represented by one delegate authorized to vote at a General Assembly.
- c) *Honorary Members* are individuals so elected by a General Assembly in recognition of their outstanding contributions to limnology, or its applications.

d) *Life Members* are individuals who make a major financial contribution to SIL. The minimum contribution for this category of membership shall be 70 times the prevailing annual dues. These contributions will be placed in a special fund intended to help young limnologists attend congresses or other meetings sponsored by SIL.

e) *Emeritus Members* are individuals who, after retirement, are nominated by National Representatives and approved by the Executive Board.

f) *Student Members* are individuals interested in limnology that are fulltime students working towards a graduate degree.

g) *Affiliate Members* are national or regional societies with an observer status in SIL and who pay 15% of the annual institutional fee. Affiliate members receive all privileges of membership but not scientific publications.

h) *Family Members*: If one person of a marriage is a member at the full rate, the spouse may be a member at half membership fee. The second member has full privileges, but will not receive publications.

§. 5. Application for Ordinary, Student, and Associate membership shall be made through a National Representative of the country concerned or through the General Secretary-Treasurer.

§. 6. Dues. Annual dues for Ordinary and Associate members, payable by February 1, shall be fixed at each General Assembly for the period until the next General Assembly. Honorary and Life members are exempt from annual dues. Emeritus Members may elect to pay no dues and receive no publications, or to pay half of the annual dues in order to obtain publications of the Association. Student members receive a 50% reduction in annual fees for a maximum period of three years.

§. 7. Members in good standing for three consecutive years will receive all SIL publications as issued during that period.

§. 8. Members in arrears will not receive publications. However, those issued during the preceding three years can be obtained, if available, by payment of dues for these years at the current rate.

#### V. Fiscal year

§. 9. The fiscal year of SIL shall end on 30 June.

#### VI. Governance

§. 10. Governance shall be by an Executive Board, an International Committee and the General Assembly in accordance with established statutes and By-Laws.

## §. 11. Executive Board

- a) The President, two Executive Vice Presidents, the General Secretary-Treasurer, and the Editor shall constitute the Executive Board.
- b) A Nominating Committee of five members recommended by the International Committee and approved by the General Assembly shall nominate candidates for the Executive Board to be elected by mail ballot prior to the next Congress. All officers are eligible for re-election except that the President and the Executive Vice Presidents ordinarily may serve no more than two consecutive terms.
- c) The Executive Board shall be convened by the General Secretary and presided over by the President. Three members shall constitute a quorum. A simple majority of those present shall carry a proposal. If votes are equal a proposal shall be defeated. Business may be conducted by letter.
- d) The Executive Board shall be responsible for presenting to the General Assembly a general report, a statement on income and expenditure, a forecast of the financial situation in the coming triennium, resolutions passed by the International Committee, and other business.
- e) The General Secretary-Treasurer, in addition to his responsibility for all business matters, shall be ex officio a member of all committees.
- f) The Editor shall be responsible for editing the publications issued by SIL.
- g) Members of the Executive Board shall act in an honorary capacity. The President, or in his absence an Executive Vice-President, the General Secretary-Treasurer, and the Editor shall attend each Congress at the expense of SIL.

The General Secretary-Treasurer and Editor shall receive an annual honorarium, the amount of which shall be fixed by the General Assembly.

- h) No document binding SIL shall be valid unless signed by the President and General Secretary-Treasurer.

## §. 12. International Committee

- a) The members of the Executive Board, National Representatives, and one representative from each affiliated organization shall constitute the International Committee.
- b) The General Secretary shall convene the International Committee, and the President shall preside over its sessions.

In his absence, the senior Executive Vice President shall preside, then the junior Executive Vice President, or if no Executive Vice President is present, then the National Representative who has served the longest.

c) Business may be conducted if all members have been notified in advance of the meeting. One-third of the members shall constitute a quorum. Resolutions shall be carried by a simple majority, defeated if the votes are equal.

d) Special meetings of the International Committee shall be called by the President or when any member with the support of at least one-third of the committee members so demands.

e) The International Committee shall be responsible for planning the activities of SIL.

#### §. 13. National Representatives

a) Each country is entitled to one National Representative for every 50 members, a fraction thereof to count as a whole. If a country has fewer than 10 members, the International Committee shall decide whether that country may have a National Representative.

b) The members of each country may, before each Congress, choose their National Representative(s) who shall be elected by the General Assembly. If no representative(s) is so selected, the Executive Board is empowered to do so. The National Representative(s) shall serve through the next Congress. They shall be eligible for re-election.

c) If a National Representative is unable to attend a meeting of the International Committee, the Executive Board is empowered to appoint an ad hoc National Representative from among the members of that country present at the Congress.

#### §. 14. General Assembly

a) The Ordinary Members, Honorary Members, Life Members, Emeritus Members, Student Members, and designated representatives of Associate Members attending a congress shall constitute a General Assembly.

b) There shall be a General Assembly at the beginning and end of a Congress, and each shall be preceded by a meeting of the International Committee.

c) The General Assembly shall decide on matters presented to it on behalf of the International Committee and in addition on items of business raised by any member.

d) A simple majority of those voting shall carry a proposal. If votes are equal, the President has a deciding vote.

e) A proposal for the termination of the Societas Internationalis Limnologiae shall require approval of three-quarters of the members at the General Assembly.

f) Should the Societas Internationalis Limnologiae be terminated, the last General Assembly shall decide how to dispose of any assets, but dissolution must be done in accordance with the aims of SIL.

g) Two auditors elected by the General Assembly shall audit the accounts each year and submit a written report to the next General Assembly.

## **VII. Congresses**

§. 15. The time and place of the next congress shall be decided by the General Assembly, and, if possible, a tentative decision about the one after that shall be made.

§. 16. The General Secretary-Treasurer shall announce the Congress at least one year in advance and, working closely with the local organizing committee, shall communicate in writing to all members the major topics and organizational details of the Congress.

§. 17. A Congress shall be held every three years whenever feasible.

§. 18. Each member attending a Congress shall be entitled to present one paper. Only manuscripts ready for press received by the Editor before the final General Assembly will be accepted. The Editor by himself or in consultation with the President or an Editorial Board can decide on the basis of its originality and scientific merit whether a paper shall be published in full or as an abstract.

## **VIII. Languages**

§. 19. Oral communication of scientific papers shall be presented in English, German, French, or Russian.

§. 20. Written communications in the Proceedings and other publications sponsored by SIL shall be in English, German, or French.

## **IX. Amendments**

§. 21. Any alteration to these statutes shall be proposed at a General Assembly, published in the Proceedings, and voted on at the next congress. A majority of two-thirds of those voting is required to alter the statutes.

## **X. General**

§. 22. The Statutes are published in English, French, and German, of which the English is the definitive text.