


50 Years with Nordic Hydrology/Hydrology Research

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ABSTRACT

The history of Nordic Hydrology/Hydrology Research is described from its initiation in 1970 to its current state in 2021. This includes dramatic changes leading first to an ownership transformation to Nordic Association for Hydrology (NAH) in 1976, and much later, in 2004, to a joint ownership between NAH, British Hydrological Society and IWA Publishing. The development in publication policy during time is covered as well.

HIGHLIGHTS

- Motivation for journal start.
- Journal development and management.
- Change of journal publisher.
- Expansion of journal ownership.
- Adoption of open access.

INTRODUCTION

In parallel to the 50-year anniversary of Nordic Association for Hydrology, the journal *Nordic Hydrology*, today named *Hydrology Research*, can also celebrate its 50 years of activity. The linkage was not formal before 1976, where Nordic Association for Hydrology (NAH) took on the ownership of the journal. Much later, in 2004, the ownership became divided between NAH, British Hydrological Society and IWA Publishing. Below, the 50-year history of the journal is described in five phases, focusing both on publication policy and on survival of crises up to its current state.

INITIATION AND FIRST YEARS OF THE JOURNAL, 1970–1975

The idea of starting a Nordic based hydrological journal was launched by Malin Falkenmark at the First Nordic IHD Meeting in 1966. The UNESCO International Hydrological Decade (IHD) had initiated Nordic hydrological cooperation through a Nordic joint committee. At that time, the number of hydrological journals worldwide was relatively low. Thus, there should be room for a new Nordic based journal, but most importantly, such journal should encourage Nordic hydrologists to publish internationally to a much higher degree than the current tradition.

The efforts finally materialised in 1970, where Nordic Hydrology was launched with Arne Forsman (see [Figure 1](#)), Sweden as an editor and Munksgaard in Copenhagen as a commercial publisher. The responsibility for the journal was anchored in a publication committee formed by the Nordic IHD committee. It was from the beginning clear that the journal should appeal to hydrologists worldwide, since the potential number of Nordic based manuscripts was considered all too low.

During the first years, four issues per year were printed, however, not without difficulties. The number of subscribers was lower than the expected, the production costs were relatively high and the editor was reluctant to continue. Moreover, IHD ended and the Nordic IHD publication committee was accordingly terminated.

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Figure 1 | Arne Forsman, Editor Nordic Hydrology 1970–1974.

NAH TAKES OVER AND NEW BASE AT DTU IS ESTABLISHED, 1976–1986

The rescue turned out first to be Nordic Publication Foundation (NOP) and NAH. NOP would agree to support the journal on the condition that the production costs were substantially decreased. To that end, the editing and the production would need to be situated at a university or similar on a non-profit basis. NAH agreed to become the owner of the journal, and the final step in the rescue was an offer from the Technical University of Denmark (DTU), where Eggert Hansen (see [Figure 2](#)) accepted to take over the editorship. He established an office for the journal and employed Mona Madsen as a journal secretary. A contract was agreed with a printer in Viborg, Denmark, which ensured the production of the journal to a reasonable price.

For the next decade, the journal stabilised with five issues per year, although the number of submissions was still in the low end. To remedy this, the editor introduced special issues with invited authors. In addition, a tradition with a special issue every second year with selected papers from the biannual Nordic Hydrological Conference was started. For the next 10 years, the journal was now running relatively smoothly, but at the end of the decade, the editor decided from mid-1987 to take a leave from the university to fill in a position in Kenya for the Danish Foreign Ministry for a 2-year period. To ensure a seamless continuation, the editor proposed that Dan Rosbjerg (see [Figure 3](#)) at the DTU should act as a substitute during the 2 years.



Figure 2 | Eggert Hansen, Editor Nordic Hydrology 1975–1987.



Figure 3 | Dan Rosbjerg, Editor Nordic Hydrology 1987–2004 and Hydrology Research 2004–2011.

STABLE PERIOD, BUT INCREASING COMPETITION 1987–2003

The board of NAH accepted the proposal, but what originally was intended to be just a 2-year replacement, eventually became 25 years. On return from Africa, Eggert Hansen did not want to resume the editorship, so Dan Rosbjerg just continued. The number of accepted submission was still just enough to fill the five yearly issues. Efforts to attract submissions were currently ongoing and highly needed due to the emergence of many new hydrological journals at that time, approximately one new journal per year.

The number of hydrology papers increased almost exponentially worldwide, but due to the many new journals, it was still a struggle to attract a sufficient number of quality papers. Moreover, reviewers became overloaded, and it became necessary to substantially expand the list of potential reviewers to above 500.

Due to Mona Madsen's routine and skills, the production by setting up the papers manually before sending to the printer company continued much longer than for other journals. However, the efficient email system resulted in great savings of efforts and time when the old-fashioned postal service was substituted by emails.

It was the ambition of the editor to overcome two problems. The first one was that, despite the fact that the journal by no means was reserved to Nordic papers, it was the conception of many hydrologists worldwide, thus limiting the number of potential submissions. This would require a new name not pointing to the Nordic region. The second, but related problem was that the regional base for the journal was too weak. A broader foundation would contribute to ensure a more stable rate of high-quality submissions. Negotiations concerning possible mergers with other journals were carried out in detail, but in the end never realised.

A third and even more serious obstacle was emerging. NOP was under reconstruction, and Nordic Hydrology was warned that the yearly contribution ensuring a financial balance most likely would be terminated. This put even more pressure on the journal to find a sustainable solution for the future, as it would be completely impossible to continue without this support.

JOINT VENTURE WITH BHS, NEW TITLE AND NEW PUBLISHER, 2004–2012

In the search for solutions to the above problems, I found that IWA Publishing (IAWP) in London (related to IWA but not part of IWA) actually was searching for a possibility to start a hydrological journal. Moreover, the well-established British Hydrological Society (BHS), contrary to NAH, did not have their own journal. Thus, a hectic period began negotiating with both parties. Eventually, it turned out that it was possible to find a common basis for the transition of *Nordic Hydrology* into a joint venture between NAH and BHS under the new name *Hydrology Research*. The name was chosen in order not to

deviate too much for the old one and at the same time being distinctly different from other journal titles. Finally, both NAH and BHS accepted, and IWAP took over as publisher in a joint ownership with NAH and BHS. To ensure a smooth transition, Mona Madsen continued for some additional years helping with organising the content of the journal issues until she retired after 30 years of service for the journal. At IWAP, Emma Gulseven took over and has since been a cornerstone in the production of the journal issues.

To reflect the joint ownership, two editors were appointed. For reasons of continuity, Dan Rosbjerg was asked by NAH to carry on, while BHS appointed Ian Littlewood, UK (see [Figure 4](#)) as an editor. A broad international editorial board was established as well. The office at IWAP routinely divided the incoming manuscripts between the two editors, and an electronic submission and review system were implemented.

An even broader basis of the journal was later obtained when both the German Hydrological Society and the Italian Hydrological Society adopted *Hydrology Research* as their official journal. Thus, the survival of the journal was finally ensured, and Dan Rosbjerg proposed Chong-Yu Xu at Oslo University, Norway (see [Figure 5](#)) as a new Nordic editor of *Hydrology Research*. He agreed, and in 2011 after 25 years of service to the journal, Dan Rosbjerg retired as an editor.



Figure 4 | Ian Littlewood, Editor *Hydrology Research* 2004–2015.



Figure 5 | Chong-Yu Xu, Editor *Hydrology Research* 2012–2019.

GROWING NUMBER OF PAPERS AND OPEN ACCESS, 2013–2021

In the following years, the number of papers in the journal was growing. Chong-Yu Xu was very effective in attracting papers, in particular from China. He also organised several special issues. In 2015, Ian Littlewood retired as an editor, and BHS appointed Nevil Wyndham Quinn, UK (see Figure 6) as a new BHS editor. In 2019, Chong-Yu Xu stepped down and proposed Bjørn Kløve, Finland (see Figure 7) to take over as a NAH editor, however remaining active in organising special issues as editor emeritus. In 2020, *Hydrology Research* became a full open access journal. This also means that all issues since 1970 can be freely downloaded from the website.

In recent years, dedicated efforts to streamline the review process in order to speed up the time from submission to acceptance have been in focus. Among other things, subject editors have been introduced and a detailed list of potential reviewers created. The aims and scope of the journal and the list of editorial board members have been updated as well. Finally, the efforts to attract and create special issues have been further intensified.

Compared to many other journals, the frequency of printing issues of *Hydrology Research* has been relatively low. This hampered the efforts to increase the journal's impact factor, as frequent publication enhances the possibility to get citations of papers in the narrow window used to calculate the factor. Consequently, it has now been decided to change to monthly



Figure 6 | Nevil Wyndham Quinn, Editor Hydrology Research 2015–date.



Figure 7 | Bjørn Kløve, Editor Hydrology Research 2019–date.

publication from 2022. The open access and the monthly publication frequency are significant steps that further will contribute to the development of the journal.

CONCLUSION

In 2020, *Nordic Hydrology/Hydrology Research* passed its 50-year anniversary, thus being one of the oldest journals devoted purely to hydrology. Despite crises during its lifetime, it has survived and is today recognised as a prominent up-to-date journal for the hydrological community.

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