



Increasing international impact of *Polish Polar Research*



Almost three years ago I presented results of an analysis of *Polish Polar Research* (PPR) as a medium of international scientific communication in 1996–2002 (Racki 2002). The study based on citation statistics that reveal importance and usefulness of published results and ideas in the global research community. Of course, this impact measure needs careful attention and remains a subject of some controversy (*e.g.* Adams 2002), and should be used with informed peer review for a truly appropriate evaluation of scientific information sources. The most reliable system of the cited reference searching includes databases of the Institute for Scientific Information (ISI) in Philadelphia. The ISI® *Science Citation Index Expanded* (SCI Ex) provides access to references found in approximately 5,900 of the world's leading scholarly science and technical journals covering more than 150 subject categories. The diagnostic sig-

nificance for international journal quality has got the ISI's impact factor (IF), a number which gives a measure of the rate with which the "average article" in a journal has been cited in a particular year.

From this perspective, PPR is proved to be the world-wide mean in knowledge transfer within the polar society as manifested by geographically extensive citation scope. Also dynamically developing multidisciplinary ecological (especially tied with faunal matters), geochemical, and environmental research in the regions, crucial for the evolving Earth's climate and oceanic circulation, are markedly represented in PPR. However, its main bibliometric indicator, the celebrated two-years IF, was not very high (between 0.1 and 0.3), mainly due to the high prevalence of older ("classic") contributions among cited articles and a relatively weak impact in the two-years window (*i.e.* recent articles published during the previous two years before calculation of the IF). It should be also emphasized that ISI considers uncritically all established cites, and this is essential for the non-indexed periodicals to consider their "real" international impact after exclusion of the self-citation counts. The approach is achieved in Poland by the Committee for Scientific Research (KBN) for distinguished non-ISI Polish biology and geoscience journals, ranked by the "**Real**" **Impact Factor** (RIF), estimated exclusively from citations registered in SCI Ex.

Significant progress in last three years is noted presently in editorial quality and scientific merit of the Polish periodicals (*e.g.* Racki 1993), well exemplified also by the PPR homepage with the full-text article access (<http://polish.polar.pan.pl>). The advantages resulted are paired with distinctly increasing international impact of *Polish Polar Research* as recorded by quickly growing citation quantity of recentmost PPR articles what is a key to the increasing RIFs. Its value in 2004 equals **0.300**, what is a distinguishing acme of the periodical (see Fig. 1), is well comparable with the most prominent Polish geoscience journals (Racki 1993). With conven-

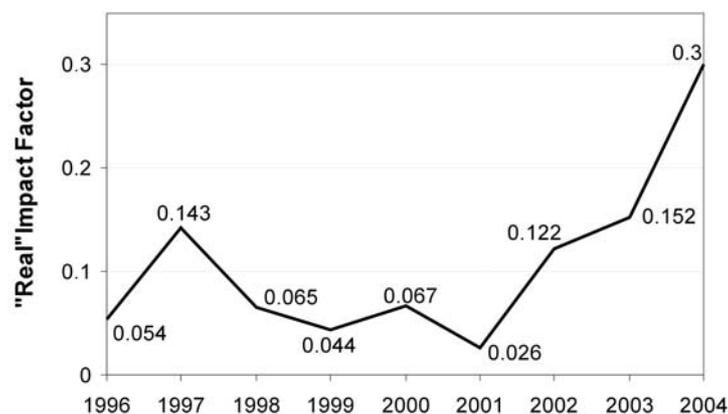


Fig. 1. Real impact factors of PPR estimated for 1996–2004 annals (*i.e.* based on citation data from SCI Ex; see Racki 2002 for details of the calculation).

tional IF of 0.375 in 2004, PPR exceeds several thematically-related journals from different countries, covered in ISI products (see Table 7 in Racki 2002).

Certainly, this improved citation pattern is stimulated by increasing publication activity of Polish scientists in the foreign core literature, most frequently in *Polar Biology* and *Antarctic Science*, as well as more numerous Polish ISI source journals, such as *Polish Journal of Ecology* and *Oceanologia*. This is visible in the most recently cited PPR article of Kukliński (2002) on Spitsbergen fjord bryozoans as well [2 self-cites among 4 quotations by Polish (co)authors]. However, this is also a promising effect of successive internalization of the PPR author group. In fact, the new articles are utilized in publications by polar investigators from Argentina, Germany, Japan, Norway, Russia and USA.

Finally, this improving short-term communication impact at least partly contributed to **approval of Polish Polar Research for coverage by ISI**, communicated in the end of 2004. Thus, the quarterly edited by the Committee on Polar Research of the Polish Academy of Sciences is the newest Polish representative in the worldwide master list of periodicals, enlarged lastly from 8,700 to 9,816 titles in January 2005.

References

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