New Zealand research

SIR-My vain wait for responses to your recent survey of science in Australasia (Nature 316, 185; 1985) from more senior New Zealand academics than I suggests that the "philosophical resignation" perceived amongst scientists in the New Zealand university research community is widespread. Alternatively, the 37 per cent salary raise for senior staff announced last week has pacified those who might be "furious about their current situation". Whatever the reasons for the silence in spite of the printed inaccuracies in research and development funding which have since been corrected (Nature 316, 668: 1985). I wish to correct two other errors and add my own pennyworth on the vexed subject of research funding in New Zealand universities.

First, the daily subsistence for New Zealand academics on sabbatical leave was reported to be NZ\$20, when in fact at this university it is NZ\$50. Even so, the maximum single leave allowance equivalent to £2,050 is inadequate.

Next, one government research body was conspicuously absent from the schematic representation of New Zealand's scientific hierarchy - the Wildlife Service of the Department of International Affairs. Although only a dozen scientists are involved, they have rescued critically endangered avian species from the brink of extinction and are highly respected in this country. As of April 1986, the Wildlife Service and several other departmental groups of biologists will be redeployed in a new Conservation Department.

This recently announced move has been debated for months and has important ramifications for future ecological research in this country. Although Nature's survey was "necessarily incomplete", the lack of any reference to a proposal to amalgamate 800 scientific and support staff from at least four existing departments into one unit with a conservation mandate surprised me.

Finally, I reject the idea that the tooeven distributions of funds which prohibits New Zealand universities from, for example, buying large items of equipment, is the fault of the "cosy three wise men" from the University Grants Committee who review applications for financial support, and that the cure lies in a "stiff dose of competitive peer review". The implied paternalism is nonexistent in my short experience.

The real problem lies in the distribution of resources within a university, rather than between them. Annual requests for equipment funding are ranked by the heads of the departments, and then within the university by a subcommittee of the Research Committee, according to unknown criteria. The paradox is that while a behavioural ecologist like myself can readily obtain modest funds for gear but not for field assistance or vehicle expenses, laboratory researchers seemingly enjoy a superfluity of technicians but are unable to purchase expensive machines with which to occupy them! Even when I sought "contentment in an external source of funds" amounting in total to four times the 1984 maintenance grant for this department, it was impossible to judge whether the nebulous criteria for promotion had been satisfied and in the absence of peer review, whether anything other than my age relative to my salary was considered.

The isolation of New Zealand from the rest of the world so eloquently illustrated on your cover (Nature 18 July) is not the most immediate problem facing university researchers here.

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SCOPE response

SIR-Your issue of 19 September (p.189) gave accounts of the SCOPE report made in Washington on the environmental effects of nuclear war. Last year (Nature 312, 696; 1984) you criticized SCOPE for discussing moral issues with religious leaders in Bellagio. Your editorial now criticizes our lack of courage in facing the political implications. They were not in our terms of reference and I could not have brought this technical study to an end in two years if policy had to be discussed with a steering committee of French, Swedish, Dutch, Indian, Russian. Japanese. American and British representatives of their national academies and with the 300 scientists who volunteered to work.

To come to conclusions on climatic effects, we concentrated on smoke and attempted to make estimates independent of scenarios on nuclear exchange. In this way, 100 major cities burnt would give enough smoke and require only a limited number of weapons in a counter-value exchange, not the 6,000 MT yield from total exchange of 13,000 MT in the arsenals. The figure for yield had to be used for the new fallout and unshielded dose calculations which revise those Glasstone and Dolan made in 1977.

We did comment on small exchanges in discussing the effect of single bursts at 25-50 km altitude on communications through the electromagnetic pulse (EMP), and the volume on Biological and Agricultural Effects avoids reliance on major exchange scenarios by concentrating on small stresses.

Should we have spelled out more clearly that a nuclear attack on major cities and

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industrial installations could rebound on the attacker and non-combatants? When the report is published later this year, and is translated into Russian, Japanese, Chinese, French and possibly German, it may be used in many ways to support different standpoints. We had hoped by holding workshops in Sweden, India, England, Soviet Union (including Estonia), Italy, the Netherlands, France, Japan, Canada, Venezuela, Australia and the United States (and you have credited SCOPE with openness in this) that onesided use would be minimized.

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PhD theses

SIR-I agree with Beverley Halstead (Nature 29 August, p. 763) that the PhD examination needs to be reformed. Having examined more than 50 candidates over many years, I have found theses get longer and more material remains unpublished.

Twenty years ago I wrote several articles (in Biologist and elsewhere) suggesting that the thesis in its existing form be abolished and that candidates should submit published work or (where gaps in results still existed) in the form required for a named journal. This would at least teach the candidate to read the instructions of the journal, something that many scientists of standing still do not do.

Students need to learn to use the literature. Much of most theses consists of material dragged in from the margins of the subject, to impress the examiner. I suggested that a separate literature review, on a topic wider than the research, on the lines of Biological Reviews, might be useful.

For what it is worth, my own PhD thesis consisted simply of a reprint of a 14-page paper published in the Proceedings of the Royal Society.

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Avoiding AIDS

SIR-Your editorial on AIDS (acquired immune deficiency syndrome) and the public anxiety about it assiduously avoids the main point.

Aside from the risk associated with being given certain blood products, if you are not promiscuous, you will not get AIDS.

Has chastity replaced death as the great unmentionable?

IAN DAVIDSON

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