Boycott of Israeli Academics Misguided

THE RECENT MOTION BY THE U.K.’S LARGEST UNIVERSITY UNION (NAFTHE) recommending a boycott of all Israeli academics who “do not publicly dissociate themselves” from Israeli policies has reignited the debate around this issue (“Over protests, U.K. union endorses boycott of Israeli academics,” E. Marshall, News of the Week, 2 June, p. 1289). Despite the fact that the NAFTHE decision is only “advisory,” it is likely that many will view it as an inducement to act along the lines of the motion. As an Israeli academic, I find myself wondering just which Israeli policies these anonymous potential boycotters would like me to publicly dissociate myself from? Should I dissociate myself from the policy to encourage joint Palestinian-Israeli science projects, the policy to admit students and faculty to our universities regardless of their race or religion, or the policy to continue withdrawals from occupied territory if the Palestinians will only stop using such territory as launching pads for further attacks on us? Or perhaps the boycotters would like me to dissociate myself from the security barrier that has markedly reduced the number of deaths of Israeli civilians from homicide bombers? If the latter, unfortunately, it seems the boycotters would like to see us choose between death and damnation.

How will the boycotters decide who has and who has not publicly dissociated themselves from Israeli policies? In the absence of a “public dissociation commissar” to categorize myself and my colleagues in Israeli academia into those who are boycottable versus those who are not, I would like to issue the following challenge to those currently quietly supporting this boycott from the safety of their anonymity. I hereby publicly identify myself as an Israeli academic who has not dissociated himself from the Israeli government policies described above, and challenge the boycott supporters to reciprocate by publicly identifying themselves as supporting this boycott. After all, if they want to support a boycott policy that is the antithesis of academic freedom and is reminiscent of the darkest days of Lysenkoism in Soviet academia, at the very least they should have the courage to stand behind their misguided convictions.

—Fainzilber

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Keeping Bandits at Bay?

IN THEIR POLICY FORUM “GLOBALIZATION, roving bandits, and marine resources” (17 Mar., p. 1557), F. Berkes and colleagues highlight the serious ecological and management consequences of sequential exploitation of biological resources by mobile agents with no attachment to place. Such “roving bandits” (either legal or illegal) deplete stocks and move on faster than local institutions can be developed to regulate them. Here, we quantify the dynamics of a roving bandit system: the live reef fish trade (LRFT) supplying luxury seafood restaurants, mainly in Hong Kong, with large predatory fish (1–4).

We compiled annual statistics on the mass of live reef fish imported to Hong Kong from individual source nations (1988–2003; see graph) from the Hong Kong Census and Statistics Department (5). Analyzing the start-up dates of the trade from these nations reveals that the LRFT has been spreading away from Hong Kong at an accelerating pace, starting at about 100 km yr\(^{-1}\) in the 1970s and reaching over 400 km yr\(^{-1}\) in the late 1990s (see graph) (6). Of 19 exporting nations (7), 10 clearly show a pattern of boom and bust. Moreover, booms appear to be increasingly ephemeral, with the time between the start and peak of the trade being significantly shorter for more distant countries (see graph) (8). The progressive deterioration of LRFT fisheries in most source nations has also led to what may be termed “fishing down the price list.” Analyzing LRFT imports by species (9) instead of countries shows that species were depleted serially in order of price (10, 11).

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**Letters**

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feared by Berkes et al., are they simply too slow? A surprisingly positive answer comes from the Pacific Ocean, an area that, because of its comparatively healthy and sustainably exploited reefs (12), offers perhaps most scope for the expansion of the LRFT. Increasing caution about the trade has led several Pacific nations to start to introduce small-scale trial fisheries and LRFT management plans along the edge of the expanding wave (see map). These efforts are coordinated through the Pacific Regional LRFT Initiative of the Secretariat of the Pacific Community (SPC) (4, 13). But what about areas that are not part of the SPC? Some (e.g., Hawaii) might nevertheless be protected by effective general fisheries regulations, while others (such as the Caribbean and Western Indian Ocean) might simply be ignored because their reefs are already overfished. Of greater concern are areas such as the Red Sea, Persian Gulf, and eastern Pacific, at potentially high risk through a combination of relatively healthy reefs and a lack of effective local institutions or regional coordination (see map).

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References and Notes
1. R. E. Johannes, M. Riepen, "Environmental, economic, and social implications of the live fish trade in Asia and the West Pacific" (Nature Conservancy, Arlington, VA, 1995).
5. Data on gross annual mass of marine fish imports carried by air (all imports) and by sea (foreign vessels only) into Hong Kong (provided by the Hong Kong Census and Statistics Department). Hong Kong is the major market for the LRFT, and these imports represent most of the global trade.
6. Quadratic regression of distance from Hong Kong (km) versus start year [for 14 countries, from (1, 4, 14)]. $R^2 = 0.92, F(1,12) = 71.9, P < 0.001.$
7. Excluding Mainland China, Singapore, and Taiwan, which receive large amounts of fish from other countries: Thailand and Bangladesh, which mostly export farmed fish; and the Philippines, due to a major temporal shift from largely unreported, illegally operating vessels to mainly reported air exports (1, 14).
8. Time to peak versus distance from Hong Kong: $F(1.8) = 9.3, P = 0.016, R^2 = 0.48.$ Note that there is no confounding effect of reef area – time to peak versus area [from (15)]: $F(1.8) = 0.4, NS.$
9. Data from 1997 to 2002. These include imports by all foreign vessels (including catches that were problematic to assign geographically, such as those from Taiwan and Mainland China) and from voluntary reports by locally registered vessels (collected by the Hong Kong Agriculture, Fisheries and Conservation Department).
10. Time to peak versus 2002 wholesale prices [from (4)]: $r = −0.66, n = 9 species, P = 0.050.$
11. See Supporting Online Material on Science Online at www.sciencemag.org/cgi/content/313/5787/612c/DC1.
14. N. Bentley, "Fishing for solutions: Can the live trade in wild groupers and wrasses from Southeast Asia be managed?" (Traffic Southeast Asia, Kuala Lumpur, Malaysia, 1999).
Response

SCALES ET AL. PROVIDE AN IMPORTANT ANALYSIS of the live reef fish trade. The loss of these local fish resources creates long-term social and economic hardship, while the profits flow from impoverished countries to a luxury market. We advocated addressing this phenomenon on various fronts: reforming markets, using the precautionary principle, establishing property rights, and building multilevel institutions from local to global that can learn from experience. Scales et al. argue that some of these policy changes have begun for the live reef fish trade, although we contend that their efficacy in preventing local stock depletion remains to be demonstrated.

A critical issue for coping with “roving bandits” is that local policy responses need to be largely based on lessons learned elsewhere. International agencies such as the Secretariat of the Pacific Community (SPC) can play a critical role in providing good governance and training, and in strengthening local capacities for monitoring and enforcement. However, the majority of the 22 member nations and territories of the SPC have not yet implemented legislation to regulate the live reef fish trade.

Scales et al. attribute the temporary decline in live reef fish imports to Hong Kong in 2000 to a change in demand rather than supply. This observation supports our argument that reforming markets is an important strategy for coping with roving bandits. The regional-scale monitoring of international trade reported by Scales et al. is crucial for revealing the market demands for live reef fish that have been stimulated by global trade liberalization and by uneven economic development. Unfortunately, their analysis shows no significant change to market drivers, other than a flexibility to substitute species and locations, characteristic attributes of “roving bandits.” Action to date has instead concentrated on harvesting restraints at the local level, encouraged by international agencies such as the SPC. Multilevel action, from the local to the international, is needed to establish institutions that are able to learn from experiences with roving bandits, develop decision-making skills in an environment of uncertainty and complexity, and respond quickly to shifts in demand from global markets.

As well as the trial fisheries and live fish management plans that have been initiated in some places, there are encouraging signs that licensing, monitoring, and enforcing can be effective, at least on a local scale. However, the social inequity arising from exportation of the dwindling coral reef resources of developing tropical nations is a strong argument for banning the international trade of live fish entirely, unless sustainability can be demonstrated. Once those resources are destroyed and forgotten, it is the local people who bear the costs of reduced options for future development.

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Recognizing Computational Science

THERE ARE PRESTIGIOUS INTERNATIONAL awards that recognize the role of theory and experiment in science and mathematics, but there are no awards of a similar stature that explicitly recognize the role of computational science in a scientific field. In my view, this is a serious omission.

In 1945, John von Neumann (1) noted that “many branches of both pure and applied mathematics are in great need of computing instruments to break the present stalemate created by the failure of the purely analytical approach to nonlinear problems.” In the past few decades, great strides in mathematics and in the applied sciences can be linked to computational science, and perhaps one can debate to what extent these advances are due to terraflop performance rather than human ingenuity in harnessing this power. Advances may be easier to recognize when simulations are supported by controlled experiments (2). But for some disciplines (e.g., atmospheric physics, space weather, cosmology), progress is made through passive observation, where “discovery” may be harder to quantify.

Nonetheless, in many different fields of science where great advances are being made, the...
Supporting Online Material for

Keeping Bandits at Bay?
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This PDF file includes:

Fig. S1
Fig. S1. Imports of live reef food fish species to Hong Kong over time, color coded by species in ascending price order (red, high value; blue, middle value; green, low value).
Mass live fish imported to Hong Kong (10^6 kg/year)

- Mangrove snapper
- Green grouper
- Flowery grouper
- Tiger grouper
- Spotted coral grouper
- Leopard coral grouper
- Highfinned grouper
- Giant grouper
- Napoleon wrasse