eties can hold down prices.

The second deal, still pending, is more controversial. SPARC has agreed to promote a new print journal published by Michael Rosenzweig, a prominent ecologist at the University of Arizona, Tucson. Rosenzweig and his 34-member editorial board have abandoned a successful journal they began in 1987—*Evolutionary Ecology*—to start a self-published competitor, *Evolutionary Ecology Research*. His departure late last year, Rosenzweig says, was primarily because Kluwer—which obtained the journal from Thomson Corp. in a merger last year—planned to raise *Evolutionary Ecology*'s library price from $464 to $777 and, essentially, to end cheaper individual subscriptions. "We wanted wider dissemination; we're tired of publishing papers that our colleagues and libraries can't afford," says Rosenzweig, who plans to publish the first issue in January.

But publishing experts say the new for-profit journal, which will cost libraries no more than $305 and individuals as little as $33 annually, faces substantial obstacles. First, knowledgeable sources say, Rosenzweig may have to strike a compromise with Kluwer on the question of trademark infringement, that is, whether the new journal is attempting to benefit from the "good will" generated by the older journal. He also will face a marketplace and academic culture that is notoriously slow to embrace new entries.

Even with SPARC's support, "it's a really bad time to be starting a journal—some libraries simply aren't subscribing to any new titles," says Janet Fisher of the Massachusetts Institute of Technology University Press in Cambridge, Massachusetts. And Kluwer executive Ad Plazier predicts that subscribers could be left hanging by Rosenzweig's venture. "When the price is too low, you can't guarantee that the journal will be available in the future," he says.

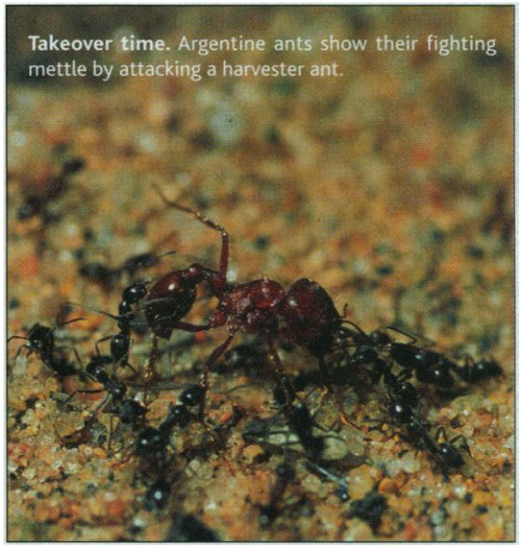
But Rosenzweig—who describes himself as "an ant taking on Goliath"—is cautiously optimistic. One positive sign, he says, is that authors appear to be flocking to the new journal, which he and his wife are running out of their home. Indeed, says ecologist Peter Smallwood of the University of Richmond in Virginia, a former student of Rosenzweig's, "it is the articles that make the journal, and it looks like [he] is getting the articles that would have gone to Kluwer." Kluwer editor Ursula Hertling, however, says the original journal, though temporarily without an editor, has manuscripts and "will continue as usual."

Librarians, however, shouldn't look for Kluwer to match prices with its new competitor: Plazier says there are no plans to reduce the title's price. But SPARC's Johnson is willing to be patient. "I have high hopes," he says, "that this will be more than just a protest movement." –DAVID MALAKOFF

ECOLOGY

Mutual Nonaggression Pact May Aid Ant Spread

Argentine ants have become common pests worldwide, raiding kitchens from San Francisco to Johannesburg to cart away crumbs of chocolate cake and soetkoekies. These tiny invaders are more than a nuisance: They often upset ecosystems and reduce biodiversity by wiping out indigenous ants. "Argentine ants are one of the two or three ant species that are a huge problem in many parts of the world," says Daniel Simberloff, who studies biological invasions at the University of Tennessee, Knoxville. One secret to their success, a group led by Ted Case of the University of California (UC), San Diego, suggests on page 949, is intraspecies harmony.



Takeover time. Argentine ants show their fighting mettle by attacking a harvester ant.

Most ants defend their territory against other colonies, particularly those of the same species. But Argentine ants far from their South American home generally don't fight each other, although they still attack other ants. Now Case and his colleagues have obtained the first direct evidence for something that ant ecologists have suspected for some time: The Argentine invaders flourish because they lose some of their aggressiveness against their own kind. In lab studies, the researchers have shown that pairs of Argentine ant colonies that don't fight reach higher population numbers than pairs of warring colonies, possibly because they waste less time and energy. "This helps explain how the Argentine ant can outcompete other insects in its introduced range," says Philip Ward, an ant biologist at UC Davis.

Although most Argentine ants in Southern California don't attack each other, Andrew Suarez, a graduate student in Case's lab, found some that did. Taking advantage of this natural variation, the group reared pairs of colonies, both containing either the aggressive or nonaggressive ants, in a setup that gave the two colonies access via plastic tubing to a shared area that contained food.

The warlike colonies started battling immediately, and many ants died, says postdoc David Holway, a community ecologist in Case's lab. After a few weeks, workers stationed themselves at the openings to the plastic tubes as if to prevent incursions from members of the other nest. In contrast, workers from the nonaggressive pairs "commonly walked [through the shared area] in a file from one nest to the other," says Holway. Furthermore, in the peaceful setting, the ants foraged for food more actively.

After 70 days, the researchers counted worker ants, eggs, larvae, and pupae in the colonies. The nonaggressive colony pairs had significantly larger numbers than the warring colony pairs. The worker populations, for example, differed by almost 100%. Underscoring the costs of aggressive behavior is a separate study by Case's group, to be published in an upcoming issue of *Biological Invasions*. The researchers found that in the Argentine ant's native range, where the insects don't take over ant communities, they behave more like other ants and fight among themselves. "These results suggest that intraspecific aggression, which is common in their native range, plays a role in limiting colony size, reducing competitive ability, and allowing for coexistence with other species," says Holway.

The researchers don't yet know why the peripatetic Argentine ants lose their aggressiveness, although decreased genetic variability may be involved. In the *Biological Invasions* study, graduate student Neil Tsutsui showed that Argentine ants in California display less genetic diversity than they do in their native ranges.

The researchers point out that harmony probably isn't the only factor helping the wanderers thrive. The ants may also benefit from the absence of some natural enemies in their foreign homes and, in some locales, from meeker competition by indigenous ants. In Australia, for example, where the Argentine ants seem to fare worse than in California, "the ant competitors are arguably less wimpy than in California," says Ward.

The new findings may spark ideas about how to control Argentine ant invasions. "If Argentine ants could be made to fight more often in the introduced range, their population sizes would probably go down," says Holway. Reintroducing genetic diversity, he suggests, might generate increased aggres-

CREDIT: MARC DANTZGER

siveness, although it could enhance the adaptability of the ants in other ways. Furthermore, Holway cautions, no one has shown that fighting in Argentine ants has a genetic basis. For now, at least, Argentine ants in kitchens around the world will continue to enjoy their peace dividend.

–EVELYN STRAUSS

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ITALIAN RESEARCH

Reforms at Final Stage Under New Minister

TRIESTE—Italian government ministers can expect to see few major projects through to completion in the country's turbulent political system, but Luigi Berlinguer came close. Last week, Berlinguer was replaced as Italy's research minister just as a parliamentary committee began its final vetting of his grand reform of Italian science. Berlinguer must curse his luck that the unusually long-lasting government of Romano Prodi—which was replaced last week by an administration headed by Massimo D'Alema—couldn't hang on a few more weeks.

The reforms are now in the hands of D'Alema's choice to succeed Berlinguer as science minister: Ortensio Zecchino, an associate professor in the history of criminal law at the University of Naples and a senator since 1987. Major changes to Berlinguer's program are not expected at this late stage, especially as D'Alema has put much emphasis on continuity.

Berlinguer got his opportunity to shake up Italian science early last year when the then–minister for public affairs, Franco Bassanini, set up a streamlined process for reforming public administration: Ministers could propose reforms by decree, which would be approved by a parliamentary committee, now known as the "Bassanini" committee, rather than the full Parliament. Berlinguer issued decrees last summer for reform of the Italian Space Agency, the alternative energy agency ENEA, and the national research council (CNR), a body with 320 research institutes and centers. All are now being considered by the Bassanini committee, but the proposed changes for the CNR are the most radical and have drawn the most attention.

Former minister Berlinguer must curse his luck that the government of Romano Prodi couldn't hang on a few more weeks.

Few dispute that CNR is ripe for reform. CNR's committee of chairs of the 15 national subject committees has become a forum for an annual scramble to grab as much as possible for each member's own scientific area or even research group. CNR is also notoriously top-heavy with management. CNR headquarters in Rome employs some 1000 staff members, while few of its 190 independent institutes have over 30 researchers. The average number of researchers at its university-based centers is only 4.6.

In Berlinguer's new model, CNR would no longer fund research in the universities outside its own centers or assist in defining government research policy; instead it will focus on its own research efforts, at CNR labs or through collaborations with academia. CNR institutes would also be rationalized into "macroinstitutes," and only those potentially of international stature would survive. The decree promises cuts of up to two-thirds in both the number of CNR labs and in the headquarters staff.

The national subject committees would also be scrapped. The decree only provides for a president, auditors, and an executive committee. Initially, this committee alone would decide on CNR's future—including the make-up of new funding committees, mechanisms for review, and collaboration—and five of its seven members need not have any scientific experience. The CNR would have a new scientific committee, but its role would be limited to consultation and support.

The proposed reforms have angered CNR researchers and lab directors because they would diminish CNR's role and reduce its autonomy. "The CNR could become just a tool for the Ministry, under tight political control, no longer the expression of and meeting point for the Italian scientific community," says Paolo Locatelli, a member of the CNR chemistry committee. CNR's College of Directors, which represents all the university-based centers, also strongly objects to the composition of the executive committee. "All the power is concentrated at the top," complains chemist Mario Mammi, president of the college. "It's like the Russian Academy of Sciences." The Plenary Assembly of the subject committees presented a motion to the research ministry in mid-September suggesting a scientific committee that is not just advisory but is a statutory part of the CNR, well represented on the executive commit-

CREDIT: ALEXANDRE MEINESZ/UNIVERSITY OF NICE-SOPHIA ANTIPOLIS

ScienceScope

BABBITT ASKED TO BAN SEAWEED IMPORTS

Marine scientists are asking U.S. Interior Secretary Bruce Babbitt to make possessing a particular seaweed a crime. Last week, 107 scientists wrote Babbitt and urged him to ban the possession, transport, and sale of *Caulerpa taxifolia*, a lush aquarium plant that has already invaded Mediterranean coastal waters, choking out native life. Without a ban—which France, Spain, and Australia have already imposed—researchers say it is only a matter of time before the weed gains a foothold in U.S. waters.

Invader. *Caulerpa taxifolia.*

The researchers also called on Babbitt to consider a big change in import policy. Currently, the United States bans the entry only of those organisms on a few short "dirty lists" of pests and weeds. But the researchers say the ecological risks posed by invaders demand a "clean list" approach: "Organisms [should] be imported only if the evidence shows they are not dangerous," says ecologist Dan Simberloff of the University of Tennessee, Knoxville. A formal response is not expected until early next year.

GLOBAL TEAMS TO BATTLE INFECTIOUS DISEASES

Biomedical scientists in North America, the United Kingdom, and tropical nations will need to work together to win funding from a new $25 million research effort to fight infectious diseases.

Yesterday, the U.K.–based Wellcome Trust and the U.S.–based Burroughs Wellcome Fund unveiled an Infectious Diseases Initiative that aims to promote equal research partnerships among developed and tropical developing nations. "It is clear that forming global partnerships ... is a key step toward reducing the health toll of infectious diseases," said fund President Enriqueta Bond.

The multinational teams—which must include members from the United States or Canada, Britain, and a tropical nation—will compete for 5-year awards worth up to $4 million. The first proposals are due in January, with a decision expected in August. A second funding round is planned for 2000.

Contributors: Alexander Hellemans, Nigel Williams, David Malakoff