## The Watersides of London, England\*

London's Waterside is the theme for the London Wildlife Trust's (LWT's) supporting campaign for the Council of Europe's conservation initiative 'The Water's Edge'. It has proved an interesting theme in London, not least because it has alerted the LWT, and London's public, to the immense potential for waterside wildlife in the city. In identifying the areas in which the London Wildlife Trust could operate within the campaign, we measured no less than 290 miles (464 km) of the Thames and its tributaries to concentrate on, and more than 3,000 acres (1,224 ha) of reservoirs, lakes, and ponds—both natural and artificial.

The London parks thus offer us a unique opportunity, as most have a lake or pond of sorts, and London is really a trellis of buried streams and abandoned canals. The Thames itself varies greatly in nature, from its protected but wild state at Syon Park, through heavily-controlled and dredged sections in the city and docks, and even out to a tiny area of salt marsh in Bexley, at the very edge of the Greater London boundary—complete with Common Sandpipers (*Tringa hypolencos*) and Oystercatchers (*Haematopus ostralegus*).

#### Waterside Projects

A number of essential waterside projects have been identified by the Trust, some of which we have been able to initiate with the cooperation of London's Borough Councils as well as some commercial companies and our own members. In Camden, for example, the London Wildlife Trust submitted recommendations for the ecological development of that part of the Regents Canal stretching north from Camden Lock for two miles (3.1 km). This has been adopted by the Council and includes the introduction of wild species to the open water, sublittoral planting of emergent and submerged species, the preparation and planting of the canal bank itself with herbaceous species, and the management of alder and willow 'carr' along the Canal walk.

In another London Borough, Sutton, we have come to an agreement with a very different landowner, the Daughters of the Cross, who are allowing us to manage a beautiful spring-fed lake, complete with Kingcups (Marsh-marigolds, Caltha palustris). The Trust is to use one corner of the lake to test the successfulness of various methods to attract Kingfishers (Alcedo atthis). We hope to perfect a technique of building the sort of bank that Kingfishers will want to colonize, so encouraging their numbers to increase in other parts of London.

Even the once-polluted, Man-made ponds can provide a habitat for unexpected creatures—dragonflies will lay their eggs in these, from a floating log. The London Wildlife Trust is interested in improving many such ponds all over London, but particularly where open spaces are rare, in order that they can be used as educational resources for waterside ecology by local schoolchildren who do not have the opportunity to observe Nature in the raw.

Old Village Ponds and Thames Foreshore

Relics from a bygone age—the old redundant farm and village ponds in the South London Boroughs—are established habitats for wildlife, many providing a breeding spot for our internationally rare Great Crested Newt (*Triturus cristatus*). Encroaching housing and road development have led to their abuse, ranging from inadvertent draining to tipping. The London Wildlife Trust has earmarked ten such old ponds which, for only a relatively small expenditure of time and money but with plenty of local goodwill, could be restored to their former healthy and interesting state.

At the east end of London, the London Wildlife Trust is campaigning hard to find support for due conservation of the few remaining sections of Thames foreshore which provide a necessary feeding-ground for Shelduck (*Tadorna tadorna*), and for Godwit (*Limosa* sp. or spp.) and other waders, and we hope to strike up a good relationship with the Port of London Authority and London Dockland Development Corporation. Already the Trust has established a link with industry in the lower reaches of the Thames, and local land is increasingly a resort for the Southern Marsh Orchid (*Orchis* sp.), flocks of small birds such as Spotted Flycatchers (*Musicapa striata*) and Whitethroats (*Sylvia communis*), as well as more astonishing species such as the Marsh Harrier (*Circus aeruginosus*).

Our part in the Council of Europe's campaign was launched in October 1983 and was supported by Lord Beaumont of Witley and Stanley Johnson, then Member of the European Parliament. We also received a great deal of interest from the London Water Authorities responsible for many of the largest water-bodies in London. These have agreed to let us have information about the pollution of rivers, and about planned water-abstraction, which are apt to be the developments most threatening to the water's edge and ones which we shall be monitoring. Man-made lakes offer the London Wildlife Trust unlimited scope, ranging from the simple erection of tern landing platforms, to establishing a waterside Nature reserve complete with trails, hides, and an information centre. Just this sort of thing is needed in London, where most interested naturalists have to travel a long way to observe a good variety of birdlife at the water's edge.

#### Diminishing Resource

The water's edge is a fast-diminishing natural resource and one upon which very many species depend, though in some cases only for a very small part of their life-cycle. In an opposite fashion to its human population, wild species are more and more attracted to London living as the destruction of habitats in the Home Counties marches relentlessly on. £100,000 is needed forthwith for the Trust to embark on a short list of urgent projects in London, to begin to redress the balance of lost wildlife areas. As our Patron Richard Mabey said, 'The unofficial countryside is bountifully provided with water, so much have its surfaces been excavated, quarried, channelled, and generally cut up'.

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### Two Aspects of Life in Antarctica

In the past it was believed that life was sparse off the coast of continental Antarctica everywhere beneath the Ross Ice-shelf—a massive sheet of ice averaging about

366 m in thickness and occupying an area approximating that of France. However, recent data obtained from deepwater photography and by divers have suggested that life is

<sup>\*</sup> Having lived for rather many happy years on the north bank of the Thames on Chiswick Mall in Greater London before the river became so horribly polluted (but then was splendidly depolluted), we could not refrain from following the account, on pp. 83—4 of our latest issue, of the familiar features of bird-cliffs, with this one of London's watersides to which the same footnote regarding their origins applies.—Ed.

abundant and varied near White Island, about 29 km south of McMurdo Station, at least near the edge of the shelf. The idea of abundant and flourishing under-ice life near White Island is supported by the presence of well-nourished Weddell Seals (Leptonychotes weddelli).

Accordingly scientists from Scripps Institution of Oceanography, La Jolla, California, headed by Dr Paul Dayton, will study the relationship between sea animals and their environment in McMurdo Sound, both under and outside the Ross Ice-shelf. The near-bottom communities under the ice live in habitats ranging from shallow water to deep sea, with varying currents and different types of sediments. The research workers will take underwater photographs of the near-bottom environments in waters ranging from 18 to 457 m deep at seven sites near Ross Island, three of the sites being under the ice-shelf. They also will use underwater photographs to survey rapidly-swimming near-surface life-forms in McMurdo Sound and under the Ross Ice-shelf.

The behaviour, brooding, and foraging patterns, of King Penguins (Aptenodytes patagonica) will be studied by other scientists, also from Scripps Institution, to determine the energy expended by the birds during those processes. In collaboration with British biologists on South Georgia Island, the research workers will monitor the activities of the birds while they care for their older chicks, and will study their behaviour while they make trips to sea.

The US scientists, led by Dr Gerald L. Kooyman, will record the birds' number, depth, and frequency, of dives; the time spent swimming, diving, and out of water; and the rate and distances of swimming. To measure the energy expended, the scientists will use water labelled with two different tracer-isotopes in determining water turnoverrates inside the King Penguins, and also their carbon dioxide production. While conducting the studies, they will measure the average metabolic rate for the birds on the Island and at sea.

Penguins comprise from 75% to 85% of the birds in southern-ocean ecosystems. The King Penguin is a species that is common on sub-antarctic islands but is rarely found on the Antarctic Continent. Individuals average between 10 and 18 kg and stand about 76 cm high.

Few studies have been made of King Penguins even though they are the major predators in that region's ocean food-web, feeding on fish and squid. Data gathered by the South Georgia Island group should make possible the development of improved models of the impact which the Penguins make on the ecosystems involved, and so lead to improved understanding of how these animals exploit their environment.

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# Global Environmental and Resource Assessment to be Published Annually by Two Research Concerns

Beginning early in 1986, an annual report on world environmental and resource trends will be published jointly by two respected international study-centres—the World Resources Institute (WRI) in Washington, DC, and the International Institute for Environment and Development (IIED) in Washington and London. This World Resources Report will be the first such major effort to provide, on a continuing basis, the best and most up-to-date information on world resource conditions and trends. In addition, the report will offer analyses of special issues; roundups of information on current research, conferences, publications, and special events; and a comprehensive set of environmental and resource data indicators.

The report will review the following areas regularly each year: population, human settlements, food and agriculture, forests and rangelands, wildlife, energy, fresh water, oceans and coasts, atmosphere and climate, global systems and cycles, and policies and institutions.

According to Gustave Speth, president of WRI, 'We saw a need for a periodic report that would focus public attention directly on global and regional resource-issues; a report that would provide a vehicle for the communication of ideas, analyses, and new data; and one that would help shape the continuing debate on resource use and environmental problems. If you believe—as we do—that world resource issues are crucially important to the future of our society and to the Earth's inhabitants, then it follows that policymakers, in and out of government, and the world community at large, all need the best information available to deal with them. We intend this report to help provide that information.'

David Runnalls, the vice-president of IIED, said, 'The World Resources Report will be a vital tool for everyone concerned with the management of physical and natural resources and the environment—[ranging] from food production to energy supply and to the condition of third-

world mega-cities. In time we expect the report to become the almanac for everyone in this vast field.'

The World Resources Report will be edited by Donald Hinrichsen, former Editor of Ambio, an international environmental journal published by the Royal Swedish Academy of Sciences. Hinrichsen joins Managing Editor Daniel Tunstall, who was the principal author of the US Council on Environmental Quality's report, Environmental Trends.

Dr Monkombu S. Swaminathan, Director-general of the International Rice Research Institute in the Philippines, is Chairman of the Report's Editorial Advisory Board, which has recently been formed. The Board's international membership includes ten individuals representing diverse experiences in government, business, science, and research.

Funding for the World Resources Report comes from WRI and IIED, with additional support from the Ford Foundation, the J. N. Pew, jr, Charitable Trust, the United Nations Environment Programme, the German Marshall Fund of the United States, the William and Flora Hewlett Foundation, the UN Development Programme, and the World Bank.

The World Resources Institute is an independent centre for non-partisan policy research on resource and development issues of global significance. The International Institute for Environment and Development is an international organization that conducts non-partisan policy research, informs and educates the public, and provides technical assistance to developing countries on the relationship between environment, development, and human needs.

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