

presence of the sea. Water has always been an 'unpredictable element', and early Man took care not to settle too close to it, preferring to retreat to the higher ground, or at least to near-by dunes. Eventually, he built houses on stilts in the water, used rubble to construct artificial mounds in the sea, and learned how to tame the waters with the help of dams and new embankments. In time he even learned how these dams and dikes could be used to hold back the sea itself, providing new and fertile land for farming and protecting himself from floods.

Until recently, Europe's river-banks and coastal landscapes were shaped mainly by two flood phenomena—rivers in spate and flood-tides at sea. From source to estuary, river-banks were constantly altered by the silt and floating debris carried down from the mountains and hills, while the coastline itself was repeatedly reshaped by ocean-currents and tides. Animals and plants took advantage of these changes, becoming adapted to meet them. Man, on the other hand, took them as a challenge and, after many reverses, succeeded in defeating them—only to end as often the ultimate loser.

The fuller extent of Man's losses became evident as the rivers lost their power to resist pollution, water supplies were endangered, extensive tracts of agricultural and grazing lands became parched, and the recreational potential of the few remaining untouched areas was threatened. These warning signs did not go unheeded. Agreements were reached on the discharge of waste into rivers and on ways of preventing oil-pollution; proposals were made to restrict industrial concentration, and supra-regional schemes were devised to control building development along rivers and on coasts. On the Rhine, for example, proposals were made for reopening sections of the river which had previously been closed off, linking them up to form a new river system. Indeed, the variety and range of the problems in different regions is only equalled by the variety and range of the proposals and programmes put forward to solve them!

One thing missing so far, however, has been energetic implementation of those schemes for the improvement

and future protection of river-banks and coastlines. This is where the new Council of Europe campaign comes in. It calls on politicians, specialists, and conservation groups, to take action to protect these particularly endangered and vulnerable parts of our natural environment—and also on every individual to ensure, by his personal conduct, that no further damage is done.

What exactly is at stake? The coastal cliffs of Europe, for example, house the continent's largest bird colonies and must be protected against intrusion and oil-spillage. Similarly, the broad mud-flats and the estuaries of nearly all the rivers of Europe are of international importance as nurseries for vital species of fish and as resting places for millions of migratory birds. The main aim here must be to ensure that the long-projected conservation programmes are actually implemented. Along coasts and rivers, comprehensive protection has still to be provided for such waterside areas as have not so far been overrun by the recreation industry. Nearly all of the few remaining tracts of riverside forest are in danger—as are the plants and animals which they shelter and nourish. Whenever it is technically possible, new banks—with appropriate native grasses, forbs, and trees—should be laid out between dikes, dams, and the open water. Boat-owners and surfers must take care not to harm these new plantations, and anglers, hunters, and hikers, can all help to preserve the resting, feeding, and breeding, areas of the wildlife which thrives on river-bank and sea-shore.

Long ago, when the sailors, merchants, and colonists, of old set sail for new shores, this meant a new beginning. Today, our remaining shores and river-banks are no longer new, but old and vulnerable. Nonetheless, we can all make a new beginning by helping to save these places before it is too late.

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What of The Sea Tomorrow?

The whole range of marine sciences came under review at a European Oceanography Colloquy held in Strasbourg, France, from 19 to 22 June 1983. The hundred or so specialists at the Colloquy endorsed a plan to set up a *European Association of Marine Science and Technology Laboratories*, under the auspices of the Council of Europe Parliamentary Assembly.

International cooperation in scientific research and the training of specialists is a precondition of understanding the sea and its resources, and of discovering how to make use of them without upsetting the balance of Nature. Various fields of enquiry were suggested for Europe: deep-water research techniques, the North Atlantic, the South Seas and the Antarctic, the coastal fringe, and exploitation and protection of Mediterranean resources. Noteworthy practical suggestions included the United

Kingdom's proposal to set up a research centre at the University of Stirling, Scotland, to study fish diseases.

Some provisions of the United Nations Convention on the Law of the Sea are so ambiguous, it was noted, that they 'might lead to an outright ban on scientific research', and to avoid this danger participants also proposed that the Council of Europe examine the possibility of drawing up a European regional convention, supplementary to the UN Convention, to remove obstacles to freedom of scientific marine research.

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Birds that Abandoned Christmas Island Now Returning

Some six months after they abandoned Christmas Island, the birds were beginning to return to that mid-Pacific atoll, according to Dr Ralph W. Schreiber, the

ornithologist who discovered in the autumn of 1982 that almost the entire bird population of the Island—about 17 millions—had disappeared.