

FROM GENEVA

Malaria returns to Ceylon amid gem strike

A few months ago a woman in the Central Province of Ceylon discovered a gem stone worth a small fortune.

Gem fever shot through the region, and thousands of people began digging. More and more gems were unearthed—and malaria, once believed eradicated, returned with a vengeance. The outbreak is regarded as serious, though figures are not yet available.

From all over Ceylon, prospectors converged on Elahera in all kinds of strange vehicles. They camped in the country.

Their methods involve sinking pits up to 30 feet deep, and sifting the gravel in wicker baskets. Over a large area prospectors took gems and left thousands of pits—excellent breeding places for malaria-carrying mosquitoes.

Minister of Health Harry Jayawardena has appealed to the army to help his department to fill the holes.

Ceylon thought it had eradicated malaria with a final five-year push that started in 1958 with the aid of the World Health Organization and the United States. The incidence had fallen from 2.5 million in 1945 to 11,000 in 1955, to 1000 in 1958. Deaths fell from 8,539 in 1945 to one in 1958.

The country had suffered several major epidemics in earlier years. The worst, in 1935, took 50,000 lives among five million people and debilitated many more.

Health officials today are concerned also that jungle territory newly brought under cultivation may become malaria foci.

WHO moves against Chagas' disease

Medical scientists and laboratories in six countries are collaborating to combat Chagas' disease, a heart and digestive ailment widespread in nations still too poor to suffer many coronaries. The acute form of the disease is most prevalent in infants and children.

The disease is transmitted by bacteria in a common insect's excreta.

The program has been organized by the World Health Organization's cardiovascular division under Dr. Z. A. Fejfar, an authority on heart muscle disorders. He is stimulating studies in Africa, India and South America.

Following a meeting of the United Nations medical agency's advisors in this field, he is asking collaborating researchers to send material from selected cases to a central laboratory in

Israel for electron microscopy, chemical and immunological studies.

Focus for this task force is a team under Prof. A. M. Davies, chief of the department of medical ecology at Hebrew University's Hadassah Medical School.

Other teams are in the medical schools of Kampala, Uganda; Ibadan, Nigeria; Salvador-Baia, Brazil; Ribeirao-Preto, Brazil; Caracas, Venezuela; and Trivandrum-Kerala, India.

The hope, after incidence and causes are determined, is to facilitate earlier diagnosis and to spur research for an immunologic and/or chemotherapeutic attack.

Dr. Fejfar describes Chagas' disease as "an acute, subacute or chronic disease resulting from infection with *Trypanosoma cruzi*, transmitted via the feces of blood-sucking bugs of the family Triatomidae.

"It is endemic in large areas of South and Central America," he says. "The heart disorder of the acute form is most frequent in infants and children. In the chronic form the disorder is usually seen in subjects between 15 and 50."

David Alan Ehrlich

FROM AUSTRALIA

Serum against sea wasps

Scientists at the Commonwealth Serum Laboratories in Melbourne hope to have preventive serum for sea wasp stings soon. The director of the laboratories, Dr. W. R. Lane said that the serum to make people immune to the stings would be taken before entering the water during the November-March season of the sea wasp, a stinging jellyfish.

Pre-contact immunization is essential since the effects of a sea wasp sting are almost immediate and often fatal. "If you weren't immunized, you would have to have the antidote in your hand as you were bitten for it to be effective in time," says Dr. Lane. Scientists at the laboratory have been working on the serum for about 12 months.

"It has virtually been a full-time job," he said, "and it is far too early to say when we will have the serum available; but it is our hope that we will have it during this sea wasp season." Eight persons have died from sea wasp stings in northern Queensland in the past 10 years. On January 1, a 12 year old boy received extensive stings while swimming at Babinda, near Cairns. Although he received a heavy dose of poison from the jellyfish, the boy is continuing to make a remarkable recovery in the Babinda hospital.

Dr. J. H. Barnes, of Cairns, an authority on the sea wasp, said the stings

received by the boy had been the most massive anyone had so far survived. He stopped breathing twice after being stung, but his heart kept beating and his breathing was quickly restored.

W. A. Scholes

FROM BRUSSELS

Conservation year proclaimed by Council of Europe

The countries of Europe are waking up to the urgency and the economic necessity of nature conservation. The 18-nation Council of Europe, whose seat is in Strasbourg, France, has declared 1970 the European Conservancy Year and this has led to a proposal for the five years 1968-72 to be an International Conservation Quinquennium.

The Council of Europe's Economic, Social and Cultural Committees of national experts are expanding their activities in this field. They are preparing a series of national conferences, exhibitions, and a manifesto designed to prepare public opinion for a convention on the conservation and development of the natural environment in Europe.

The manifesto will concentrate on the preservation of the natural environment—soil, air, water and wildlife, but will also include noise abatement. The Council is particularly keen to promote interest among farmers, engineers, town planners, shipping owners, industrial chemists and the tourist trade, and emphasises the economic as much as the aesthetic importance of nature conservancy.

A full-scale publicity campaign is being launched to attract as many European countries as possible, including those in Eastern Europe. To mark the conservation year every member country has been asked to establish something practical—a nature reserve, a field study center, nature trails, or some other permanent contribution.

Preparation for the year will take place in close cooperation with the International Union for the Conservation of Nature and Natural Resources and the World Wild-Life Fund.

John Lambert

FROM JAPAN

Space spending up 20 percent

The Japanese government's Science and Technology Agency has obtained a \$1,635,000 boost in funds for its space developments program for fiscal 1968, bringing the total space appropriation to just under \$9 million.

With this increase, the agency will finally be able to set up its long-proposed

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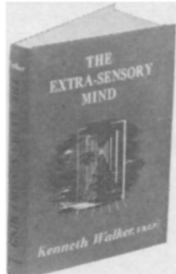
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(from page 146)

Space Development Committee within the Prime Minister's Office, as a step toward unifying the nation's presently scattered space development projects. A little more than a third of the appropriation is funding for a planned ionospheric satellite, to be orbited by 1969.

Three previous attempts by Japan to launch satellites, two in 1966 and one in 1967, all ended in failure.

The agency was also granted a \$12.2 million appropriation to invest in the recently created Power Reactor Nuclear Fuel Development Corp. in Tokyo. Several other government projects, however, including the development of a new jet engine, desalination of seawater, a new method of producing ammonia gas and development of a high-efficiency computer have all been postponed until at least fiscal 1969. These were all to have been undertaken by the Ministry of International Trade and Industry, until its request of \$21,950,000 was chopped to a final appropriation of \$10,950,000.

Stuart Griffin

FROM AUSTRIA

Goiter from iodine-rich diet

Swiss and other mountain peoples have long suffered endemic goiter, presumably because of dietary iodine deficiency.

But certain northern Japanese coastal villagers also suffer enlarged thyroid glands, although they eat mostly generously helpings of iodine-rich kelp seaweed and fish.

Japanese medical researchers, working under a grant from the United Nations International Atomic Energy Agency in Vienna, believe there is strong evidence that the "major cause of goiter in coastal villages of Hokkaido is excessive and prolonged intake of seaweed."

Dr. Keimei Mashimo and colleagues of the Internal Medicine Department of the Hokkaido University Medical School have conducted an epidemiologic survey. They have examined 6,451 grade school children and other inhabitants of Iwanai, Akkeshi and Rishiri villages.

Wherever seaweed consumption has been reduced, they find, the high incidence of goiter is falling.

Furthermore, they report, animal experiments demonstrate that kelp has a goitrogenic effect, at least in some species.

Wistar strain rats and white rock chicks were fed kelp extract, or water containing an equivalent amount of potassium iodide.

A marked increase in the thyroid gland weight was produced in the chicks. But no goiter showed in the rats.

Dr. Herbert Vetter, IAEA medical chief says that further studies using radioactive iodine-131 are now in progress or will start soon.

"We want to obtain a detailed picture of the thyroid function and to determine whether animal goiter is produced by the same mechanism as that in man," he says.

FROM INDIA

World weather watch

India is gearing up to its role as a regional telecommunications hub during the World Weather Watch. New Delhi, Tokyo and Offenbach, Germany, will serve as three of the connecting links in the global program.

Automatic meteorological stations are being put up in many regions, especially deserts from which no observations are now available.

Data will then be passed on by radio teletype link to three world centers in Washington, Moscow and Melbourne.

K. S. Nayar

Windmill design for economical power

Wind as a power source has been known to man for countless generations and windmills have been in existence both in the Orient and in the Occident for centuries past. Primarily used for raising water from wells and grinding corn, wind mills can be utilized for electric power generation, a fact of increasing importance in developing areas of the world.

The kinetic energy of a unit volume of moving air is less than that of falling water or high pressure steam. On the other hand the power of the wind varies as the cube of its velocity. Thus for example the power that can be produced by wind blowing at a speed of 12 kilometers per hour is eight times the power producible when the speed is 6 km per hour. By establishing wind generators at suitable sites where nature offers high winds, it is possible to produce substantial amounts of electrical energy at low cost.

The National Aeronautical Laboratory, located at Bangalore in the South of India, has designed two types of wind electric generators of 12 volt/250 watt capacity. The generators use an automobile dynamo coupled through a gear box to a propeller. The first type is suited for windier regions along the Western coast, like Saurashtra, where the annual mean wind speed is between 12 and 20 km per hour. This type has a 2-bladed propeller with fixed pitch and a diameter of 2.1 meters. The sec-