Plants and Wildlife: NATURE’S PHARMACY, OUR TREASURE CHEST

WILD SPECIES PROVIDE THE MEDICINES WE DEPEND ON

Nearly 1/4 of prescriptions written in the U.S. are derived from wild species.

According to the FAO, 13% of all flowering plants – 53,000 species globally – are used medicinally.

56% of the 150 most popular prescribed drugs are derived from natural compounds found in the wild, with an annual economic value of $80 billion.

This could be the tip of the iceberg—less than one percent (1%) of tropical plant species have been screened for pharmaceutical applications.

At the current extinction rate, experts estimate that the Earth is losing one major drug every two years. A cure for cancer or AIDS may lie in a plant or animal waiting to be discovered.

EXAMPLES

The bark of the Pacific Yew, a slow-growing tree found in the ancient forests of the Pacific Northwest, contains Taxol—approved as treatment of ovarian, breast, and lung cancer.

The Rosy Periwinkle provides the cure for Hodgkin’s disease and some forms of leukemia. The periwinkle was on the brink of extinction from deforestation until scientists discovered its medicinal value.

Digitalis, derived from purple foxglove, extends the life span of an estimated 3 million Americans who suffer from heart disease.

Star Anise, an herb grown in China and long used to treat infants for colic, provides a key ingredient in the anti-viral drug Tamiflu. The plant is thus at the center of the worldwide search for a cure for avian flu and the threatened flu pandemic.

Microorganisms have been the source of more than 3,000 antibiotics (Abramovitz, 1997), including penicillin, which is produced by the fungus Penicillium.

It has been calculated that native forests in Belize are worth between $726 and $3327/hectare for their medicinal plants alone.

Rooibos, a member of the pea family from South Africa, is a concentrated source of antioxidants.

Aspirin, also known as acetylsalicylic acid, comes from the bark of the willow tree.

Devil’s Club, native to the old growth forests of the pacific northwest, is used to treat a range of problems from arthritis to indigestion and is particularly useful to inhibit infections and to treat diabetes.

Quinine, used to prevent malaria, is derived from the bark of the Cincona tree, native to South America.

ANIMALS HELP TOO!

Tests in Australia have shown that Crocodile blood may contact compounds that kill the HIV virus.

Gila Monster saliva helps diabetics. The drug Byetta, recently given federal approval for treatment of diabetes, is made from the Gila Monster saliva. This new class of diabetes drugs can control blood sugar for longer periods than older diabetes drugs, and help with weight loss.

Native Plant Conservation Campaign
www.plantsocieties.org Ph: 415 531 4439 E mail: emilyr@plantsocieties.org