

BITTER TRUTH



MD. ASADULLAH KHAN

Biodiversity: Nature's medicine chest

BECAUSE of human greed, the world is losing a marvelous diversity of genetic materials that has enabled the plant kingdom to overcome pests, blights and droughts throughout the ages. Moreover, the explosive growth of the world's population forces clearance of forests, causing extinction of species of wild plants.

Consequently, potentially valuable food and medicinal sources are being lost before they are discovered.

Diversity of life seems to be on the wane in the emerald rain forests in Madagascar, the Amazonian belt near Brazil or Costa Rica, and in the Sundarbans in Bangladesh. In all these lush green territories, there was hardly a break in the canopy of tall trees and the entire area was alive with the cacophony of all kinds of birds, insects, monkeys and other wildlife including tigers and deer.

But in the late '70s, to meet the needs of population boom that bedeviled almost all parts of the world, there came swarms of settlers, slashing and burning huge swaths through the forests to create roads, towns and fields. Nature's handiwork is so exquisite, so skillfully arranged that humans have no control there. The soil that supported a rich rain forest was not suited for other crops. Humans are destroying entire ecosystems and millions of species of plants and animals that live in them.

Plant breeders have used genetic diversity to help fuel the green revolution and keep agricultural production ahead of population growth. But as the raw material for revolution disappears, the food supply becomes vulnerable. It seems that humans are at war with the plants and animals that share the planet. Scientists warn that during the next three decades, man will drive an average of 100 species to extinction everyday and say that the present rate of extinction is at least 1,000 times the pace that prevailed since pre-historic times.

We can't ignore the importance of these species that are so precious to us. Imagine how our fate is entwined with a South American vine or a fragile pink flower in Madagascar. Many patients facing major surgery rely on a muscle relaxant extracted from an Amazonian vine 'chondodendron tomentosum,' a powerful anesthetic. Quinine, obtained from an African climbing plant, is used as a heart stim-

ulant. The alkaloid quinine was one of the first treatments and preventives for malaria. Many such plants have been used for thousands of years to treat diseases. All these plants that have healed and soothed millions of people are but are merely samples from nature's medicine chest. Of the 2,50,000 flowering plants believed to be in existence, tens of thousands remain undiscovered and only some 5,000 have been tested for their pharmaceutical attributes.

Now, because of the dire threats posed by the loggers, lumberers and settlers, it has become an obligation for us to protect these precious species whose medicinal values and other utilities are yet to be explored.

Half of the earth's species thrive on the warmth and wetness of tropical rainforests. About ten square kilometers of Amazonian jungle contain about 2,200 species of plants other than the lower plants like lichen and fungi that abound so enormously with such potential benefits accruing from them.

Many people are asking if there is any need to care about small things like bugs, weeds and fungi. Since we depend on functioning ecosystems to cleanse our water, enrich our soil, and create the very air we breathe, biodiversity is not something to discard easily.

Only a minute fraction of the species or organisms -- probably, less than 1% -- have been examined for natural products that might serve as medicines. Now scientists and researchers feel a compelling need to press the search for antibiotics and anti-malarial agents. The substances most commonly used today are growing less effective as the disease organisms acquire genetic resistance to the drugs.

The bacterium staphylococcus, for example, has recently reemerged as a potentially lethal pathogen, and the micro-organism that causes pneumonia is growing steadily more dangerous. The age of antibiotics, it has been said, is over. Medical researchers are nevertheless locked in an arms race with the rapid evolution of pathogens that is certain to grow more serious.

The argument to keep live specimens in zoos and botanical gardens does not hold water. The grim truth is that all the zoos in the world can sustain a maximum of 2,000 spe-

cies, out of about 24,000 known to exist, and the world's botanical gardens would be even more overwhelmed by the quarter million species. In such a situation, the conclusion of scientists and conservationists is almost unanimous: the only way to save wild species is to maintain them in their original habitats. Undoubtedly, such habitats are shrinking. Many ecosystems are already lost and others seem doomed. With appropriate measures and will to use them, the hemorrhaging can be slowed, perhaps eventually halted, and most of the surviving species saved.

The 1.52 million hectares of forest area in Bangladesh, that covers less than 10% of the total land area, is exposed to threats from pirates, encroachers, poachers, and land grabbers. According to FAO country report, about 5% of the forest land has been grabbed and converted into agricultural land during the last decade. The country's forest area is far too inadequate to ensure environmental equilibrium, because experts say that a country should have forest on one-fourth of its landmass to maintain natural equilibrium.

The abundant plants and insects in the Sundarbans still remain unexplored. The majestic Royal Bengal tigers and spotted deer population add to the beauty and attract people from all over the world. But the hurried decision of the government to set up a thermal power plant at Rampal, just 14 km away from the forest's edge, exposes this natural forest to serious perils. The government should have assessed the impact of such venture on this natural shield against calamities before undertaking this venture. We have to remember that we can have power plants in many other locations in the country, but we cannot create another Sundarbans.

The world's flora and fauna are paying the price for humanity's population growth. It should be borne in mind that we are destroying a part of creation by accelerating biological impoverishment, thereby depriving all future generations of what we ourselves were bequeathed. Many people are asking if there is any need to care about small things like bugs, weeds and fungi. But now the value of little things in the natural world has become compellingly clear. The fact is, the more species living in an ecosystem, the higher its productivity and the greater its ability to withstand drought, and other kinds of environmental stress. Since we depend on functioning ecosystems to cleanse our water, enrich our soil, and create the very air we breathe, biodiversity is not something to discard easily.

The writer is a columnist of *The Daily Star*.
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BEETLE BAILEY

by Mort Walker



HENRY



by Don Trachte

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QUOTABLE Quote

"He who is not courageous enough to take risks will accomplish nothing in life."

Muhammad Ali

CROSSWORD by Thomas Joseph

ACROSS

- 1 Drifting ice
- 5 NFL pioneer George
- 10 Mountain group
- 12 Alaska native
- 13 Composer Bruckner
- 14 Yes-man
- 15 Sgt. e.g.
- 16 Vibrant
- 18 Light breeze
- 20 Presidential nickname
- 21 Sharif of "Dr. Zhivago"
- 23 Mercury or Mars
- 24 Assess
- 26 Genesis site
- 28 Penna. neighbor
- 29 Store event
- 31 Future embryos
- 32 Striped equines
- 36 Pike of exploration
- 39 Spanish gold
- 40 Make blank
- 41 Circus worker
- 43 City of southern France
- 44 Wasn't thrifty
- 45 Mail order pioneer
- 46 Fluffy wraps

DOWN

- 1 Composer Liszt
- 2 Jousting weapon
- 3 Victorious
- 4 Sense of self
- 5 Millinery wares
- 6 Heaps
- 7 Tree greenery
- 8 Bird painter
- 9 Designed
- 11 Digestion aids
- 17 History chunk
- 19 Very popular
- 22 Lets up
- 24 Daydream
- 25 Crimson Tide's home
- 27 Ball girl
- 28 Egg buys
- 30 Dye type
- 33 Famed lover
- 34 Fight site
- 35 Classifieds
- 37 Manual reader
- 38 Reduced amount
- 42 LAPD issuance

CRYPTOQUOTE

NGS FVQ RXDSVW ZX VFW RXDSVSW RMS ZX GSRCSX, RXA NGS' MS VFFJZSD AFBS FX NGS AFADSMW.

Yesterday's answer

I	T	A	S	C	A	R	O	I	L
N	O	D	E	A	R	U	N	D	O
S	P	O	N	G	E	S	T	W	O
24	25	26	27	28	29	30	31	32	33
34	35	36	37	38	39	40	41	42	43
44	45	46							

A XYDLBAAXR IS LONGFELLOW

One letter stands for another. In this sample, A is used for the three L's, X for the two O's, etc. Single letters, apostrophes, the length and formation of the words are all hints. Each day the code letters are different.

Yesterday's CRYPTOQUOTE:

THE TREE OF LIBERTY MUST BE REFRESHED FROM TIME TO TIME WITH THE BLOOD PATRIOTS AND TYRANTS.

- THOMAS JEFFERSON

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Sunday, 7 September 2014

Urban land use in Narayanganj

Dominance of economic activities, squeezed for social space

MOHAMMAD SIRAJUL ISLAM and KAZI NIAZ AHMED

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