

Conserving biodiversity hot spots

Extinction is forever, once a species is gone, it will never return. Still, life on Earth is remarkably tenacious. Eventually, another species will evolve to take the missing one's place in its former ecological niche. It's part of the earth's cycle of life. Of all the species that have evolved over the past four billion years, it is thought that 99,999 per cent are now extinct.

The trouble is, evolution moves very slowly. None of us will be around long enough to see new species evolve to replace those that die off today - certainly not us as individuals, and probably not even us as a species. That's because it takes about 10 million years after an extinction event for the biodiversity (biological diversity) of an area to recover.

This recovery rate comes from a new analysis of species extinction in the March 9 edition of the journal *Nature*. The findings are shocking because it was previously assumed that an extinction event would be immediately followed by a "pulse" of new life as species emerged to fill vacant ecological niches.

Science Matters

d by David Suzuki



However, the new analysis holds that there is first a long lag period of low diversity when ecosystems are dominated by generalist organisms, like rats and cockroaches, which are able to adapt to a wide variety of conditions.

The reason for this lag is because organisms do not merely fill ecological niches, they actually are ecological niches. They act as evolutionary starting points from which many other species can emerge, such as predators and parasites. In this way diversity begets diversity. Extinction thus implies more than the loss of one species, but also the loss of an ecological catalyst and the evolutionary potential that goes with it.

The diversity lag appears to follow both background extinctions, where a few species disappear, as well as mass extinctions - where a great number of species die off.

Scientists know of five such mass extinctions found in the fossil record. The most recent led to the disappearance of the dinosaurs 65 million years ago. An earlier extinction, 245 million years ago, eliminated almost 60 per cent of life on earth.

Many scientists today believe that we are in the middle of the sixth great extinction, as tens of thousands of species are disappearing every year, this time as a result of the activities of one species - human beings. Habitat destruction is the primary cause of extinction, but competition from introduced species, over exploitation from hunting and fishing and pollution are also important factors.

That this loss of species will not recover from 10 million years does not bode well for humanity. A diversity of species on earth is important, not just because of the tremendous variety of raw materials they provide, but also because of the services that diverse, healthy ecosystems provide - from cleaning and replenishing our water, to maintaining our soils and providing oxygen.

There are ways to stem the

tide of extinction. According to researchers in a Feb. 24 article in *Nature*, if we focus conservation efforts on biodiversity "hotspots" we have a much greater chance of preventing the extinction of the greatest number of species. These are areas of tremendous biodiversity that are losing habitat and species at an alarming rate.

Researchers have identified 25 hotspots around the world, from the Tropical Andes, to Madagascar and Micronesia. These areas total just 1.4 per cent of the earth's surface, yet are home to as many as 44 per cent of all plant species and 35 per cent of all vertebrate species. According to the researchers, a focussed effort on conserving these hotspots could be the most practical way to save a great number of species.

Such an effort is crucial because unless we are able to put the brakes on extinction rates, it is estimated that in this century we could lose between one and two-thirds of all species - making the earth a much lonelier place for the next 10 million years.



BIG WINNERS: A trio of young bowlers from Acton's Smurf league walked away with a trophy as big as themselves after winning the Bumper Bowling Classic in Guelph recently. A total of 15 teams of youngsters aged three to six competed in the event. Shown with their trophy are from the left Jasson Lockyer, 3, Kyle Perryman, 6, and Brandon Perryman, 4. - Maggie Petrushevsky photo

At the Lanes

Youth Bowling SMURFS:

High single boys - Justin Corbett - 122; High single girls - Ashley Daamen - 152.

PEEWEE'S (Saturday):

High single boys - Brandon Lockyer - 154; High double boys - Brandon Lockyer - 273; High single girls - Cristina Umbrello - 66; High double girls - Cristina Umbrello - 131.

BANTAMS (Saturday):

High single boys - Brandon Bennett - 179; High triple boys - Brandon Bennett - 408; High single girls - Tricia Joyce - 155; High triple girls - 387.

JUNIORS (Saturday):

High single boys - Josh Thompson - 217; High triple boys - Josh Thompson - 553; High single girls - Holly Wiscombe - 243; High triple girls - Cora Ridout - 615.

JUNIORS/SENIORS (Sunday):

High single boys - Nicholas Glover - 203; High triple boys - Shawn Richard - 462; High single girls - Rebecca Howe - 214; High triple girls - Sara Kruk - 539.

JUNIORS (Monday):

High single boys Kyle Harding - 275; High triple boys - Kyle Harding - 590; High single girls - Ashley Burnett - 174; High triple girls - Ashley Burnett - 440.

PEEWEE/BANTAMS (Tuesday):

High single boys - Jonathon Uiterwyk - 187; High triple boys - Jonathon Uiterwyk - 483; High single girls - Samantha Popp - 194;

High triple girls - Samantha Popp - 471.

SUNDAY YABA:

Men's high single - Paul Kavanagh - 262; Men's high triple - Adam McKenzie - 606; Ladies high single - Cathie Ahearn - 349; Ladies high triple - Dar Labombard - 844.

MONDAY '55 PLUS:

High single men - Shorty Lowinn - 294; High triple men - Dee Deforest - 719; High single women - Ana Eikerman - 263; High triple women - Annamarie Lowin - 656.

MONDAY MIXED:

High single men - Tyler Currie - 268; High triple men - Tyler Currie - 594; High single women - Judy Mitchell - 186; High triple women - Judy Mitchell - 553.

TUESDAY LADIES:

High single - Teresa Uiterwyk - 315; High triple - Teresa Uiterwyk - 722.

TUESDAY MIXED:

High single men - Williw Moreland - 205; High triple men - Doug Bastell - 559; High single women - Penny Kirkland - 206; High triple women - Penny Kirkland - 527.

WEDNESDAY MAJORS:

High single men - Michael Meller - 339; High triple men - Dave Mills - 811; High single women - Lina Wall - 306; High triple women - Dar Labombard - 780.

THURSDAY OSO:

High single men - Johnny Tomazic - 220; High double men - Alan Adey - 374; High single women - Tina Marsh - 111; High double women - Tina Marsh - 217.

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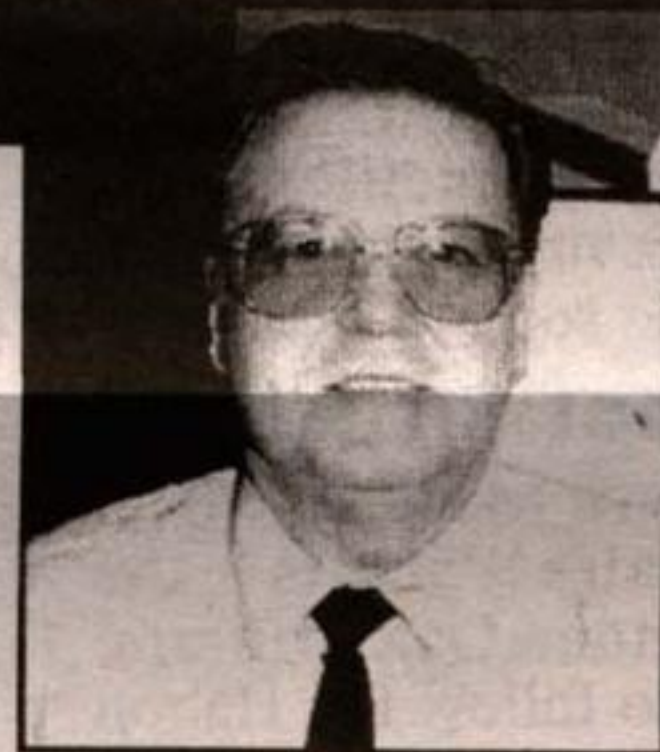
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NO FREE LUNCH

QUESTIONS have come to me again about receiving mail or phone calls about winning contests.

My answer to these questions is always the same: remember there is no such thing as a free lunch. If you did not enter a contest you will not win that contest, so do not be tricked into thinking you are getting something for nothing. If you read the mail you receive telling you you have won something, always read all of it, including the fine print, and be very careful as these letters are always written to confuse you. Further, if the letter or phone call requests you to send money to pay the taxes or administration fees, do not do it. If you do you will never see your money again, nor any prize. If you are told to call a number to see if you have won a prize it will most likely be a long distance call which will end up costing you more than any prize you may get.



PHONE BUSTING

I have received information that the Federated Women's Institutes of Ontario are presenting "Phonebusters", where you can learn about telephone scams and how to stop them. If you wish to attend it will be held on Wednesday, April 12, 2000, at 1.30pm at the Knox Presbyterian Church, 44 Main St. N., Acton. I intend to try and be there, why don't you?

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