



Bermuda Botanical Society

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FEBRUARY NEWSLETTER 2012

FROM THE PRESIDENT:

2012 is off to a splendid start! This winter, so far at least, has been a most pleasant change from the last two, when a steady two-gales-per-week seemed to be the norm. Mostly light winds, lots of sunshine, mild temperatures and enough showers to keep the ground damp, what more could we plant lovers wish for?

I urge everyone to get outside and enjoy the great outdoors, be it gardens, parks, trails or nature reserves. Better yet, plant some flowers, shrubs or trees, grow some vegetables, even if only in a container outside the kitchen door.

We have three interesting and varied events arranged for the coming months – see the Calendar of Events in this issue. All members, prospective members and guests are urged to support these events. Admission for all events will be \$5 for members and \$10 for non-members.

‘Botany’, ‘Plant Sciences’, What’s in a Name?

According to an article in *The Garden*, the journal of the Royal Horticultural Society, no universities in the UK will be offering degree courses in Botany after next year. Apparently, the numbers of applicants for such courses has been steadily diminishing to the point where the courses are not viable. This is a global phenomenon, not just unique to the UK. In sharp contrast, the number

of applications for courses in zoology is increasing steadily.

Apparently, Botany is considered to be too “dry” a subject and not fashionable. (Speaking of fashions in education, I also read that there are three times as many students studying Social Studies in the UK as are studying Engineering!)

There is such a paucity of graduating botanists in the UK that, for five years now, the Royal Botanic Gardens at Kew have had to recruit botanists from overseas!

But all is not entirely lost! Reading on, I found there are a few universities still offering courses in such subjects as ‘Plant Science’, ‘Bioscience’ and ‘Plant Biology’. It seems the study of plants is now to be known as ‘Plant Sciences’ due to differing views as to exactly which classes of organisms are, or should be, covered by the term ‘Botany’.

In any case, with the global population having just passed, or about to pass, the seven billion mark, one would think that Botanists, or Plant Scientists, would be in hot demand as the world grapples with global issues such as climate change, hunger and famine. Any youngsters out there looking for a career?

Nigel Chudleigh

Warning! Do not eat mushrooms unless certain what they are!

MUSHROOMS IN BERMUDA

BY GEORGE PETERICH

This time we'll start with the saying I ended my last article with: I wrote "The more you know, the more you see". Now I want to tell you, "The more you know the more you eat."

I have eaten my first wild mushroom breakfast here in Bermuda! Oyster mushrooms. We saw them on a tree stump close to the south gate of the Botanical Gardens. I had seen them once before in Florida, a great number of them growing on the stump of a poplar.

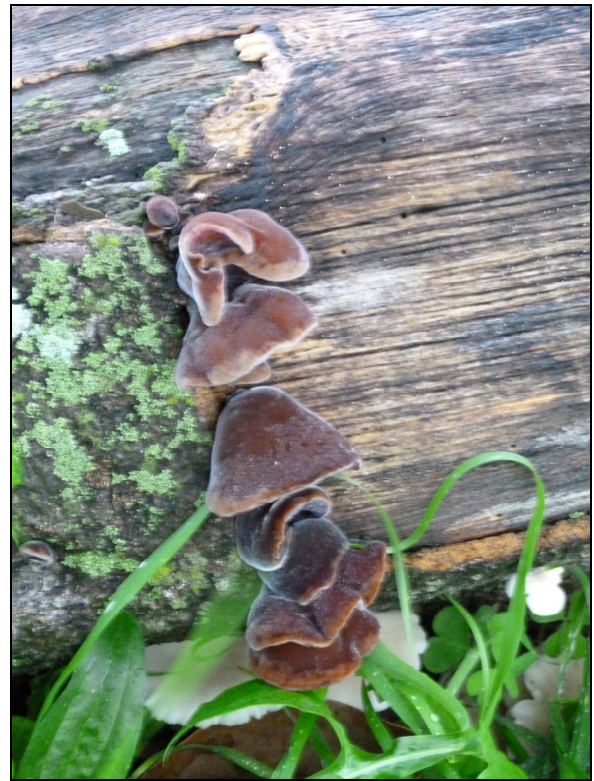


Oyster mushrooms

When I was home I studied them in the book by Roger Phillips, "Mushrooms of North America", and another book, "Edible and Poisonous Mushrooms".

After that I was sure, and went back the next day to harvest a few. Unfortunately many had dried out because of the strong wind, but there were enough for me. I fried them in butter and ate them on toast for breakfast, just as we would do when I was young and we lived near the woods where we found cepes and chanterelles.

There was another edible mushroom on a poinciana stump. It was a Woodear, as it is called in America. The British call it Jew's Ear, and I have known it since I found it in a book by Roger Phillips, called "Wild Food". This mushroom grows on old elder trees in Europe and here in Bermuda I found it first on the dead wood of a Jacaranda, then on Poincianas and lately also on stumps of Pride of India.



Woodear mushrooms

When fresh (mostly after a rainy period) they are orangey brown; when drying out they become black. Phillips describes how fresh ones should be prepared: you must cook them for 30 minutes, which is a long time for mushrooms.

In China the Woodear is very popular and many tons come to market in their dried form. You will recognize them in their soups as a rubbery substance. The texture is more important than the taste..

The texture of cooked mushrooms varies a lot. They can be wonderfully crisp, but also tough or slimy. In general mushrooms are eaten more because of their taste than their nutritional value. They can be delicious and even exciting (think of black and white truffles).

Warning!! The good taste of a mushroom is not necessarily a sign that it is edible! It is said that the Roman Emperor Claudius was fed deadly poisonous mushrooms (I don't know which kind!) and he even asked for more, before they took effect . . .

Photos © George Peterich.

The Royal Gazette will soon start running Lisa Greene's weekly column on plants. Look for it in the Friday (we think) edition, and spread the word to people you know who are curious about Bermuda's flora.

SEXING THE COUNTRYSIDE

BY LISA GREENE

Some plants bear male and female flowers on one plant (monoecious), others are either male or female plants (dioecious). The Bermuda cedar is a good example of the latter. The trees flower in spring but it is the yellow-brown cone-like structures holding the pollen on the male trees that are obvious – as is the pollen when it is released to the wind:



Male cedar

The female trees are easy to identify in the fall when they bear the fruit (the blue berries):



Female cedar

One of our native plants, doc bush (*Baccharis glomeruliflora*), also bears its male and female flowers on

separate plants. This branching shrub is flowering now and the two types of flowers are quite easy to tell apart. If you look closely you can see the pollen bearing stamens sticking up out of the compact male flowers:



Male doc bush

The female flowers are more slender and look rather like straight, white candle wicks. The flowers are pollinated by flies:



Female doc bush

Examples of doc bush can be seen in the Rock Garden just north of the Exotic House in the Botanical Gardens. (The

doc bush has leathery leaves with a rather unusual texture for plants, so be sure to feel them.)

Doc bush is occasionally seen growing out of roadside walls. It is becoming more common in gardens, planted by gardeners who are encouraging our native and endemic flora and wildlife.

An introduced ornamental from Madagascar that has male flowers on one plant and female flowers on another is the screw palm or screw pine (*Pandanus utilis*). On male trees, the creamy-white flowers are crowded in dense masses that hang down and look like bundles of fluffed up cat's tails:



Male screw palm

I have wondered about the female flowers for a number of years now, not being sure what they looked like. Recently I had the opportunity to have a close view of a female tree with flowers at various early stages. The female flower appear to be a small round group of smaller flowers, each one of which later develop into the angular knobs that

make up the large round fruit with which we are all so familiar:



Female screw palm

*Doc bush and screw palm photos © Lisa Greene.
Cedar photos © Helle Patterson*



It was promised a long time ago, but now it's a reality, although still in the very early stages, so please keep checking it out ... yes, WE HAVE A
WEBSITE!

www.bermudabotanicalsociety.org

If at first you cannot access it, try again a couple of days later ...

CYCADS NO LONGER 'LIVING FOSSILS'



Cycads in the Bermuda Botanical Gardens
Photo © Nigel Chudleigh

We have always thought Cycads to be relics from the age of the dinosaurs. But a new study claims that present-day cycads all originated from a common ancestor a mere 10 - 12 million years ago.

Cycads were certainly abundant when the dinosaurs were around between 200 and 65 millions years ago, but they were not the same cycad species we have today.

At the time of the dinosaurs, around 20% of all plants were cycads but they were brought close to extinction when dinosaurs, their major dispersal agent, themselves became extinct 65 million years ago. But cycads enjoyed a revival 10 - 12 million years ago, possibly due to a major climate shift, and all modern cycads date from that time, or later.

The researchers used a sophisticated technique called molecular clock analysis. They measured the genetic differences between 200 of the 300 known cycad species existing today. Since genetic mutations apparently occur at a fixed rate when species radiate from a common ancestor, the researchers were able to use that data, together with the fossil record, to calculate when that divergence originated.

Cycads are relatively rare today and most of the known species are endangered. They are generally very slow growing and long-lived and this may make them vulnerable to climate change. One species that is relatively common in Bermuda is the King Sago Palm, *Cycas revoluta*. The name 'Palm' is unfortunate since cycads are not palms, nor even closely related.

C. revoluta is useful in the landscape ,where it adds a tropical touch. Once established they require little or no maintenance. However, all parts of the plant are poisonous to humans, pets and livestock. Like all cycads they are dioecious, that is they have separate male and female plants. (See article by Lisa Greene on previous pages.)



Cycad *Zamia furfuracea* in the grounds of BIOS
Photo © Helle Patterson

Nigel Chudleigh

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CALENDAR OF EVENTS

Admission to events: Members \$5.00, non-members \$10.00

- Thursday, 23 February** **6.00 pm PLANTS OF THE EASTERN CARIBBEAN**, a photographic presentation by Diana Chudleigh. Visitors' Centre.
- Saturday, 3 March** **3:00 pm PROPAGATION WORKSHOP** by Peter Lee. Montrose Mews. Come learn how to make your gardening more fun and a greater adventure, with the guidance of our own horticulturalist.
- Saturday 14 April** **2.00 - 4.00pm OPEN GARDEN.**
Michael Darling is kindly opening his very interesting garden at Fleetwood Manor, 39 Harbour Road, Warwick. There is limited parking nearby on Harbour Road. Please car pool if possible. For information call: Michael Darling 236-0389 or Nigel Chudleigh 293-0128

*Articles welcomed for upcoming issues of the newsletter. Please send to the Editor, Helle Patterson, at helle@northrock.bm
Deadline for next newsletter is Monday, April 2.*