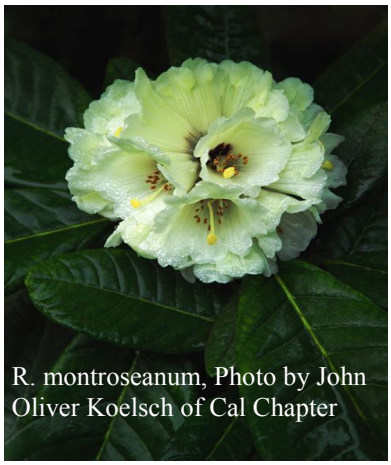
American Rhododendron Society

Eureka Chapter

The next meeting ***Thursday March 24 , 7:00 p.m.*** *Woman's Club* *1531 J Street* *Eureka, California*	*Pre-Meeting No Host Dinner 5:15* ***Pho Thien Long, 615 E Street*** *Eureka,* ***Call Nelda, 707-443-8049*** *For a reservation so there will be enough seating. This is a Fixed Price Meal*



R. montroseanum, Photo by John Oliver Koelsch of Cal Chapter

March 2011

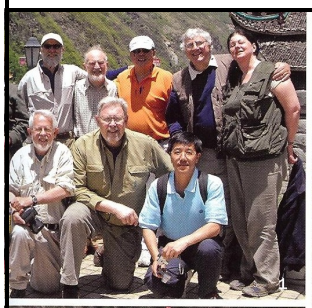
Keith White - Sichuan, China Expedition

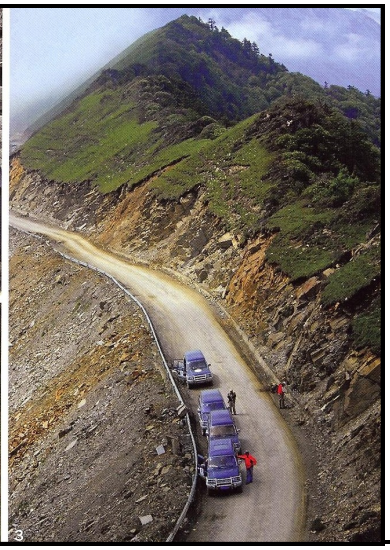
The Eureka Chapter is very excited about our upcoming program Thursday **March 24 at 7:00 p.m. at the Eureka Woman's Club 1531 J Street in Eureka**! All of our programs are great in one way or another but this program will prove to be exceptional.

The program that Dr. Keith White will be presenting will be: "The Scottish Rhododendron Society May 2009 Sichuan, China Expedition"

Keith and two other Americans joined the SRS for a plant exploring trip to a number of prime locations in Sichuan and Eastern Tibet. Besides enjoying superb plant hunting and great weather, they were able to see beautiful scenery and the culture of the Han Chinese, Tibetan and other minority Chinese. They visited the area devastated by the 2008 earthquake and also the mission compound and cathedral of the early 20th century French missionary and plant hunter Pere Armand David, who did so much to advance Sichuan botany in the West as well as advancing Christianity in China.

The show will consist of a rapid-fire presentation of lots of photographs, many labeled, with narration and comments by Keith throughout. The expedition was chronicled in an article that he wrote for the just-published 2011 issue of "Rhododendron Species" – the annual yearbook of the Rhododendron Species Foundation and Botanical Garden. As members of the RSF the booklet is available to Eureka Chapter members. Call June Walsh (443-0604) if you'd like to borrow it.





If time allows Keith may show a few photos from the South Central China collecting trip that he took last fall with Peter Cox and Steve Hootman. *Continued next page*

Pictures are Keith White's
Top left, Intrepid explorers, Keith is center front row.
Below left, Meconopsis punicea
Right, roadside botanizing, Jia Jin Shan

Keith White Continued from previous page

Keith is a rural family doctor from Independence, Oregon. He lives near Salem and still delivers babies at Salem Hospital. He's had teaching appointments at Oregon Health and Sciences University in Portland for 30 years and is now on the Oregon Medical Board.

Keith's family includes his wife, Wendy and children Ryan age 12 and Erin age 9. They will likely be coming on this trip because it is their Spring Vacation. They tell us that they are looking forward to meandering down the coast and exploring the Redwoods as well as many other coastal marvels.

Keith has been an ARS member for almost 30 years and has been a Board member and Chairman of the RSF photo committee for about 20 years. He got his start in Rhododendrons when he discovered Crystal Springs Garden in Portland during Medical School. Since then it has been one of his favorite haunts.

By all accounts Dr. Keith White gives a most memorable program about exploring the wilds in search of old, new and undiscovered Rhododendrons. Keith knows Rhododendrons from firsthand experience. He is a great speaker! This is your chance to be entertained by and talk with one of the most experienced plant hunters in the world today. You WILL be both entertained and excited by this program!

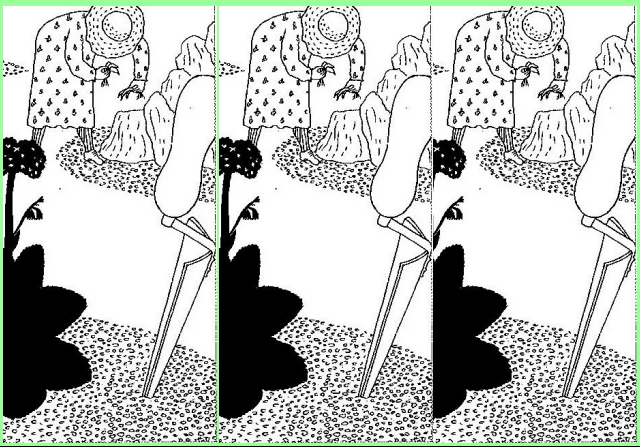
Top Left, HBG Plant Health Committee Chaired by Bruce Palmer on the right. Top right and bottom left Ice and snow at HBG February 26 Bottom Right Snow at the Rhody Hostel

Plant of the Month
Rhododendron 'Rubicon'
By Don Wallace

I always say "If you are going to buy only one rhododendron, buy R. 'Rubicon'. The main reason that I say this is because 'Rubicon' probably has the very best foliage of any rhododendron, but will also, quite often, bloom over an extended period of time, giving you color for March, April and even May.

Hybridized by R.C. Gorden of New Zealand, the cross is R. 'Noyo Chief' x R. 'Kilimanjaro'. This hybrid has inherited the glossy foliage from R. 'Noyo Chief', yet is a much smaller growing plant. Over time, 'Rubicon' will become 4 ft. tall x 6 ft. wide, with no stems showing. I have seen this plant used as a specimen for an entrance way as well as a foundation plant that will not over grow the windows. R. 'Rubicon' can grow in full sun in Humboldt County, or in a shady area as well,

On the first day of springtime,
My true love gave to me
Five packs of seed*,
Four sacks of fertilizer*,
Three cans of weed killer*,
Two bottles of insect spray*,
And,
A pruning knife for the pear tree.
**Organic and environmentally friendly, of course!*



Mark your calendars...Plant Sales Coming Up

Eureka Chapter American Rhododendron Society	April 30 and May 1 at St. Bernard's Elementary School
Northcoast Chapter Calif. Native Plant Society	April 30 and May 1 at Manila Community Center
Humboldt Botanical Gardens	April 30 and May 7 at HBG, north gate at College of the Redwoods
College of the Redwoods	April 30 at the greenhouse

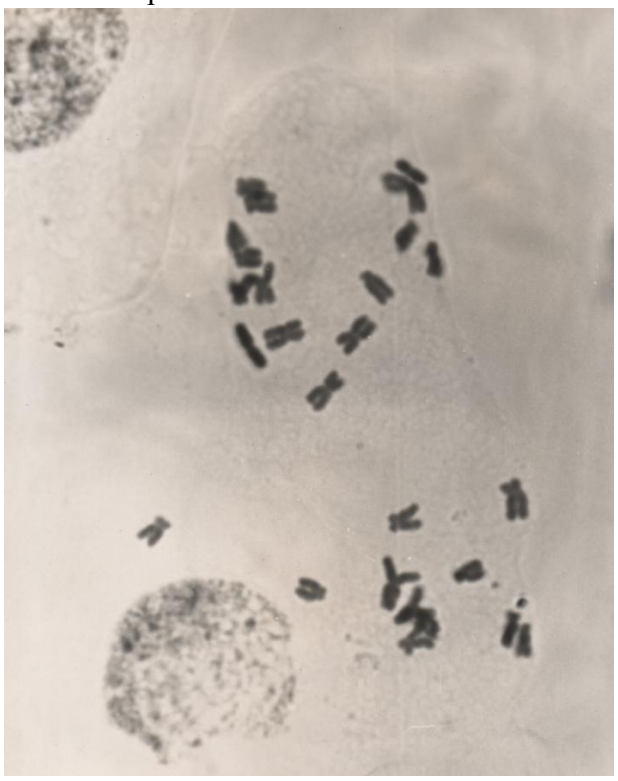
WORD OF THE MONTH

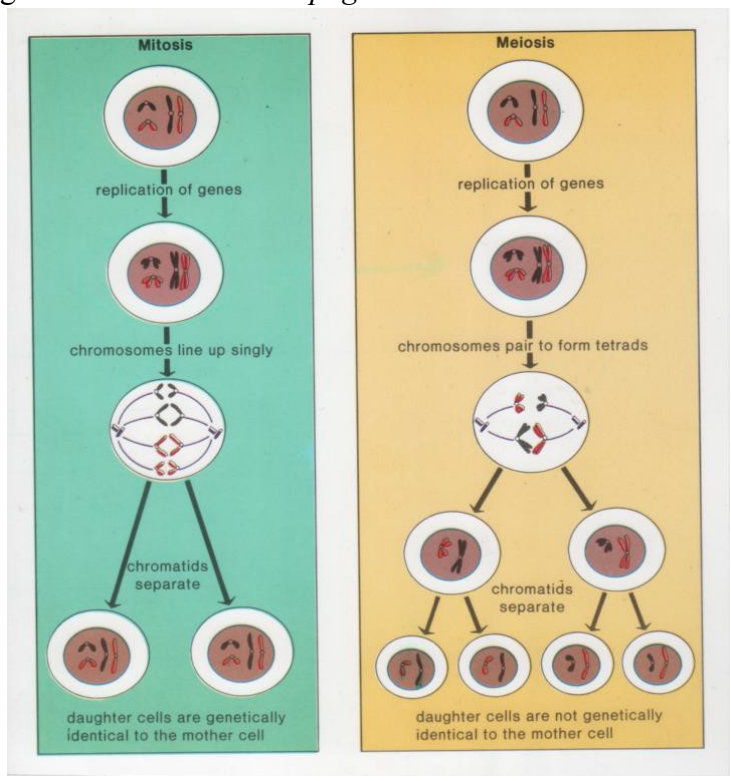
By, Bruce Palmer

This month's word is **POLYPLOID**. It comes from the Greek *polys,* many, and the Greek combining form *ploos*, fold. Thus, **polyploid** means many fold. The word comes up this month because of Don Wallace's talk on hybridizing last month. Don showed us a picture of a hybrid Rhododendron, *R. "Horizon Monarch"* with large flowers and leaves. To understand why that plant has big flowers and leaves we need to review our basic biology knowledge from high school.

The variety of forms in nature is mediated by sexual reproduction. That's what sex is for (variety) not for fun, despite the rewards for humans. The characteristics we see in plants and animals alike are controlled by **genes** (a contraction of pangene, from the Greek *pan*, universal, and *genes*, universal or something that produces). A gene is a strip of DNA that controls a specific characteristic in an organism. In general, a characteristic is controlled by two genes, one inherited from each of two parents. Each of these genes is on a separate long strip of DNA called a **chromosome** (Greek, *chroma*, color, and *soma*, body). An old photo of buttercup root cell chromosomes I took many years ago shows this as the first illustration (below left). There are many exceptions among plants, animals and other organisms, but for our purposes we can say that cells in plants and animals have chromosomes in pairs. The number varies from one organism to another; Rhododendrons have thirteen pairs and humans have 23 pairs. In the cells not responsible for sexual reproduction we say that for the genus Rhododenron 2n=26; for humans 2n=46. We call this **diploid** (Greek *dis*, twice, and *ploos*, fold). Somatic (Greek *soma*, body) cells, those that do not carry on sexual reproduction, reproduce by duplicating the DNA in chromosomes, lining the chromosomes up in a row and separating the DNA strips to produce two new cells, each with the same number of chromosomes as the parent cell. The left side of the second illustration (below right) shows this process, called **mitosis** (Greek *mitos*, thread).

For cells that carry on sexual reproduction, the process (called **meiosis** from the Greek *meioun*, to make smaller) has extra steps that produce cells with single chromosomes instead of paired ones. The right side of the second illustration shows this result. When two of these **haploid** cells, each from a different organism of the same species, combine the result is a **diploid** cell that can reproduce myriad times and specialize to become a multi-celled organism. *Continued next page...*





Word...continued That's what is supposed to happen, but the extra steps in **meiosis** often go wrong, producing cells that aren't **haploid**. Sex cells with multiple sets of chromosomes are called **polyploid**. In animals if a **polyploid** sex cell combines with another sex cell it is uniformly fatal. A large number of human miscarriages are probably caused by this problem. In plants it is another story. All sorts of **polyploid** combinations can occur and do so regularly in nature. **Polyploid** plants in a given species tend to be hardier in nature than their **diploid** relatives. Traits in **Polyploid** plants are controlled by more than two genes and they generally have larger leaves, flowers and fruits than **diploids**. We take advantage of this in agriculture for both food crops and ornamental plants. The original wild tomato is smaller than the grape tomatoes we get in the grocery store; the larger the size the more chromosomes. For the last fifty years or so, **polyploidy** has been induced artificially using the gout drug colchicine and other substances. The hybrid *R. 'Horizon Monarch'* that Don showed us is a **tetraploid**. Two **diploid** sex cells combined to produce a plant with four chromosomes of each kind and the result has larger leaves and flowers than its parents. This doesn't always work well. *R. 'Taurus'* and *R. 'Hallelujah'* are **triploids**; they have three sets of chromosomes. Plants with odd numbers of chromosomes tend to get fouled up when they produce sex cells and are notoriously hard to hybridize. On balance, though, **polyploidy** produces great ornamental plants that we can enjoy for their dominating foliage and large, showy flowers. Let's hear it for 'Horizon Monarch', 'Grand Slam', 'Taurus', 'Lem's Monarch', 'Point Defiance', 'Supernova' and all the *R. maddenii*.

Eureka Chapter members work at Humboldt Botanical Gardens
Left, Max Abrahamsen and Diane Larkin unload rhodies donated by Bob Boddy
Right, Don Wallace and Tim Walsh plant rhodos in the Temperate Woodland Garden from Rhododendron Species Botanical Garden.

On Tuesday March 8th in Fort Bragg, Tim Walsh presented Bob Boddy of Descanso Nursery an award from Humboldt Botanical Gardens honoring Bob for his generous donation of many large landscape rhododendrons. Some of the rhododendrons have been used by Humboldt Botanical Gardens for fund raising while the remainder will be used to beautify the future auto garden.

Bob is a long-time member of the Noyo Chapter and has received its Bronze Medal. Bob in his acceptance speech allowed as since he is a little over 91 he needed more nursery space to try some different plants!

Eureka Chapter

Eureka Chapter is published monthly except during July and August. Submissions from members are encouraged and should be mailed to June Walsh, Bulletin Editor, 2050 Irving Drive, Eureka, CA 95503-7022.

Membership information and applications are also available from June Walsh.

Eureka Chapter is a member of the Humboldt Botanical Gardens Foundation, Eureka, Calif., and The Rhododendron Species Foundation, Federal Way, Wash.

Eureka Chapter is a chapter of the American Rhododendron Society.

Eureka Chapter/American Rhododendron Society
2050 Irving Drive
Eureka, CA 95503-7022

Future Programs

March 24, 2011	Keith White, MD, "China Expeditions"
April 21, 2011 (this is a date change)	***Bill Hicks, "Lepidote Rhododendrons"***
April 29, 30 and May 1	Rhododendron Show and Sale
May 11 –15, 2011	ARS Annual Convention, Vancouver WA
May 26, 2011	Mini– Show and Pizza
June 5, 2011	The Founders'Gardens Tour and Potluck Picnic

Programs are subject to change.

"It's alive, it's alive!" I'm reminded of the Gene Wilder and Madeleine Kahn comedic movie version of Frankenstein as our green shrubs wake up and come, well, "Alive!" How appropriate the rare thunder and lightning storm that crashed through the area last Tuesday morning. Apparently that event awakened the flowers of '*Rubicon'*, '*Noyo Brave'*, and '*Noyo Chief*' among many other early-bloomers in my garden. As we approach Saint Patrick's day and the first day of spring I'm seeing the tips of Lilies, Anemones, Echinaceas and several Ferns starting their crawl above ground. We look forward to bringing many new hybrids and rare species Rhododendrons to the Eureka Chapter and the public over the next several months through our Show and Sale which will occur during the Rhododendron Festival April 30 and May 1 at St. Bernard's Elementary School.

Don't miss the meeting March 24; Keith White comes to us on the heels of rave reviews from those who have seen his programs in the chapters he has already visited. His program is given from firsthand experience exploring for Rhododendrons in the wild!

By Tim Walsh

Eureka Chapter Officers and Board Members
September 2010 to June 2011

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