American Azaleas, Part I

Charles Andrews—Cumming, Georgia

This is Part I from the keynote presentation given at the ASA convention, April 7, 2018. Part II is planned for the Fall 2018 issue.

Introduction

You don't know how much I appreciate this opportunity to talk about one of my three loves, the three of which are my wife Mardi, trout fishing, and native azaleas.

I do not want to give the standard eye-candy presentation of these no-doubt amazingly beautiful natives. This is an opportunity for us to consider how complex a group of plants they are, how confused we have been about them, what we are just now learning, and what we need to do in the near future. Follow me as we traverse through a maze of complexities you may not have been aware of.

Azaleas

American azaleas–native azaleas or "wild honeysuckle"–are part of the dynamic duo of evergreen and deciduous azaleas. We all know azaleas come in two basic flavors: chocolate and vanilla. Actually, evergreen and deciduous, though not everyone knows the two are not botanically very closely related. They are both called azaleas today only because Carl Linnaeus put both types in the same genus, which he named Azalea. It is almost impossible to force a cross between plants of the two types. The rare seedling is almost never vigorous or healthy. Deciduous azaleas are more closely related to the large-leaved elepidote rhododendrons than they are to evergreen azaleas.[1]

Evergreen azalea species are solely Asian, while deciduous azaleas are found in Asia, Eastern Europe, and North America. Of the deciduous, the lion's share is found in North America, with 17 species as currently counted.

Stepchildren

All azaleas are now classified in the large *Rhododendron* genus, and some consider azaleas the stepchildren of *Rhododendron*s. More than one botanical author has written of "true rhododendrons" and then of azaleas as if azaleas were not true rhododendrons. Arguably, the large rhododendron genus of around 1,000 species could conceivably be divided into multiple genera, as several botanists have suggested—(*Ledum, Tsusiophyllum, Rhododendron, Azalea, Menziesia, Azaleastrum* (Cox[2]); *Ledum, Tsusiophyllum, Rhododendron, Azalea, Menziesia, Azaleastrum, Hymenanthes, Therorhodion* (Copeland[3]). But as of now, azaleas are just as much a rhododendron as *Rhododendron maximum,* the Rosebay rhododendrons, or *R. lapponicum*, the Lapland rosebay.

Leonard Frisbie, founder of the Pacific Rhododendrons Society, who eventually did so much to bring attention to *R. occidentale*, the western azalea, began his interest in rhododendrons with a personal bias against deciduous azaleas. Introducing a 1949 article "Series Azalea: Subseries Luteum," Frisbie wrote:

In writing about the deciduous rhododendrons, which many consider to be a poor country cousin to the more spectacular evergreen sorts, I would like to have it understood that I am not trying to place them on par with the other Series. With me they very definitely run third place behind the quality evergreen species and hybrids. But they do have a place in our gardens.[4]

Frisbie was not alone in considering our American deciduous rhododendrons third-class citizens.

I am one, however, who thinks these stepchildren, the American azaleas, are magnificent. The wild plants are not gaudy or flamboyant. They do not look like they have been put on steroids. They have a natural beauty. The flower trusses are in perfect balance with the size of their leaves. The plants blend well in a natural setting with both evergreen and deciduous plants. Our native azaleas offer strong and varied fragrances unparalleled in other rhododendrons species. Our natives come in many colors, including many vibrant shades of orange and yellow. Proper selection will give bloom periods from early spring until fall. And azaleas are generally less troublesome than their large-leaved counterparts.

What's not to like? Oh, they are deciduous? Well, let's rid our gardens of hydrangeas, dogwoods, cherries, witch hazels, winterberries, forsythia, lilacs, and, of course, roses.

Complex Group of Plants

Our native azaleas are a very complex group of plants and not well understood. The problem begins with species. We all talk about species as if we know what we are talking about. We say, "I have this species," or "I have that species," as if we are talking hard facts.

The truth is botanists cannot agree on what a species is. There is no exact definition. Genus and species are man-made concepts in an attempt to classify plants and animals. They are not exact, provable entities like 1+1=2, or the second law of thermodynamics, or iron, gold, and helium. Yet we use the terms so casually we accept them as hard facts when much of botany, including the taxonomy part is soft science akin to economics, political science, and social studies.

Plants, especially our native azaleas but also *Vaccinium*, *Crataegus*, *Solidago*, *Rubus*, *Hamamelis*, and parts of *Quercus*, do not always fit neatly into the pigeonholes described in the books and identification keys. I believe our American azaleas may be misclassified. It is not clear how many species we really have or should have. Is it the current 17 or should it be more? Perhaps it should be less, say 3 to 5, with more subspecies, varieties, and forma.

What is clear is that there are contradictions and inconsistencies in the current list and difficulties in assigning many of our wild plants to one of the taxa. Our plants have highly variable morphological characteristics that overlap the manmade species descriptions. Where does one species end and another begin?

The "this is a hybrid" excuse goes only so far. Earl Sommerville has said most natives are hybrids, and from the viewpoint of gene exchange he is possibly correct. The idea of an evolutionary tree where this species evolved from that species may be all wrong. Our native azaleas for the most part are a promiscuous bunch. Given half a chance, they will exchange spit with almost any other native azalea. The heritage of our azaleas does not look like a branched tree; it looks more like a spider web of cross pollination back and forth, back and forth, for millennia.

We normally think of a hybrid as H=A x B. A major problem with native azaleas in the wild is that species A and species B have to be somewhere within pollination range to have such a hybrid. Often, they are not. This suggests that these so-called hybrids are as much stabilized as the so-called species. Perhaps we have species and hybrids all wrong. Both are part of a continuum. Speciation is as much a function of our language as of evolutionary processes.

I would argue that the real dynamic entity that uses its gene pool to adapt for survival is at a higher level than the current 17 species, *R. vaseyi* and *R. canadense* excepted. It is more at the *Pentanthera* level. Perhaps it is the group that is evolving and not the declared individual species. To avoid confusion, however, we'll refer to the 17.

We assume from our still held pre-Darwinian ideas that species come before hybrids, but is this true? It seems species equilibrate out of the cobwebs of hybrids.

We have the real world and we have herbaria. The real world – the populations of the mountains, balds, woodlands, plateaus, and plains of North America – does not match well with the 17 species as described. Nevertheless, we need to know what they are. (See Table 1.)

I like to think of some of them in groups:

- I put *R. canadense*, *R. vaseyi*, and *R. occidentale* each in a separate group of one. *Canadense* and *vaseyi* are so different from anything else, and *occidentale* is the only azalea on the West Coast.
- The group of early pinks is comprised of *R. canescens*, *R. periclymenoides*, and *R. prinophyllum*.
- The early whites are *R. alabamense*, *R. atlanticum*, and *R. eastmanii*.
- I also place *R. colemanii* and *R. austrinum* each in a group of one. *Colemanii* is the latest named species, a tetraploid. *Austrinum* is often yellow or orange, but it is quite different from other orange azaleas. Arguably, I could consider colemanii and austrinum combined into a single group.
- My orange group is made up of *R. flammeum*, *R. calendulaceum*, *R. cumberlandense*, and *R. prunifolium*.

North America has the lion's share of deciduous azaleas. There is only one in Eastern Europe and a small handful in Asia. In America, one is west of the Rocky Mountains, *R. occidentale*.

All the rest reside from eastern Texas and eastern Oklahoma to New England and southeastern Canada. In the main, you will find these 16 species of eastern North America in and around the Appalachian Mountains. They do trail down into the foothills and plateaus and to both the Atlantic and Gulf Coastal Plains. The disjunct populations of *R. prinophyllum* in Arkansas and Missouri suggest the

Table 1—17 North American Species

R. alabamense Alabama azalea	*R. canadense* rhodora	*R. flammeum* Oconee azalea	*R. vaseyi* pinkshell azalea
R. arborescens sweet azalea	*R. canescens* Piedmont azalea	*R. occidentale* western azalea	*R. viscosum* swamp azalea
R. atlanticum coastal azalea	*R. colemanii* Red Hills azalea	*R. periclymenoides* pinxterbloom azalea	
R. austrinum Florida azalea	*R. cumberlandense* Cumberland azalea	*R. prinophyllum* roseshell azalea	
R. calendulaceum flame azalea	*R. eastmanii* May white azalea	*R. prunifolium* plumleaf azalea	

Photo Charlie Andrews

▲ Photo 1— *R. canescens* from Lumpkin County, Georgia.

▼ Photo 2—*R. periclymenoides*, the pinxterbloom azalea.

Photo Charlie Andrews

distribution of this species may once have been much larger. The sweet spot is the southern Appalachians, though Georgia, with its geography comprised of mountain, Piedmont, and Coastal Plain regions, which has 12 indigenous species, more than any other state.

The primary reason for this distribution is acid soil and moisture. Look at a soil map of the U.S. and it compares closely with the distribution of our native azaleas. Where soils become calcareous and where average rainfall is less, azalea distribution ends.

I might point out that some of the western azaleas, *R. occidentale*, do grow in slightly acid to basic serpentine soils. Note three facts related to this: (1) Most *occidentale* do grow in acid, non-serpentine soils, (2) the serpentine soils are high in magnesium and iron and low in calcium, which may help alleviate the problem azaleas have with higher pH soil, and (3) the *occidentale* found in the serpentine areas do have some morphological differences from *occidentale* in other locations.

Problems with the Species

We do not have space to go over all the problems with the current species, but we can identify a few.

The main problem is inconsistency and arbitrariness in species assignment. Consider the *R. viscosum* complex. In her PhD dissertation, Kathleen Kron moved *R. oblongifolium* and *R. serrulatum* into *R. viscosum* without even variety status. She also removed variety status from *R. viscosum* var. *aemulans* and *R. viscosum* var. *montanum*. Yet Kron kept *R. canescens*, *R. periclymenoides*, and *R. prinophyllum* as separate, distinct species.[5]

Aemulans is an early blooming plant, in flower generally from March to April. It is very low and running, forming colonies similar to *R. atlanticum*, and it has fuzzy, ovoid flower buds. *Aemulans* is a unique plant found in the Gulf Coastal Plain and west into southeast Texas on the edge of sandy drainages in the transition between dry and wet areas.

Serrulatum is a late summer and fall blooming plant, flowering in July to October. It is tall, non-stoloniferous, and has smooth lanceolate buds. *Serrulatum* is commonly found in the Florida Panhandle and adjoining states on sandy river banks and hummocks in swamps. *Serrulatum* is found growing on the Gulf Coast with its roots in heavy concentrations of salt. A common factor with these two distinctly different plants seems to be the narrow, white flower tube. These two types along with others are currently considered one species.

Canescens and *periclymenoides* are both early blooming, pink to white azaleas. *Canescens* is the most common azalea in the Southeast and *periclymenoides* dominates from North Carolina northward, though the two species do overlap in distribution. Their colors are similar, with *periclymenoides* occasionally producing shades of lavender. (Photos 1 and 2.)

Often stated as a distinctive feature are the glandular hairs on the tube of *canescens*, but *periclymenoides* also has a glandular tube form. *Canescens* is said to produce somewhat taller, more upright plants. These two types, along with others, are currently considered separate species.

If *viscosum* is one species despite its many variations, why not *canescens* and *periclymenoides*? Further, then why are the similar *R. cumberlandense* and *R. flammeum* separate? Or *R. cumberlandense* and *R. prunifolium*? Why cannot *R. calendulaceum* and *R. cumberlandense* be a ploidal series of a single species like the wandflower, *Galax urceolata*, and the American elm, *Ulmus americana*? Where is a thorough DNA research project when you need it?

Natural Hybrids/Introgression

Another complication in classifying and identifying a particular native azalea is natural hybridization. Of the 17 declared American species, most will cross with the other species, given the opportunity, and do. *R. canadense* and *R. vaseyi* are the exceptions. This means identification keys are of limited value to identify what species a wild plant may be. We look at a plant, but we have not been introduced to its parents or grandparents.

Clement Gray Bowers, who in 1936 wrote *Rhododendrons and Azaleas*, the first detailed book on the subject of rhododendrons by an American author, points out that some botanists considered *R. prinophyllum* to be a variety of *R. periclymenoides* and that transitional forms between the two of nearly all degrees have been found. He used the names *R. nudiflorum* and *R. roseum*, which have since been declared illegitimate.[6]

R. periclymenoides also hybridizes readily with *R. canescens*. Introduce me to somebody who can tell with

certainty to which species a pink azalea in this large overlap area belongs. Henry Skinner in his 1951 epic 25,000-mile journey "In Search of Native Azaleas" found on the southern end of the Cumberland Plateau below Sewanee, Tennessee, what he called:

> a confused complex reminiscent of *R. canescens*, *nudiflorum*, *alabamense* – all thoroughly mixed together and varying in flower color from pure white to lavender, pale pink with pale tubes, and pink with deep red tubes, many of the plants being highly stoloniferous.[7]

On a brief, late swing through Arkansas, Skinner found *R. oblongifolium*, which is now included in *R. viscosum*. He found it growing side by side with *R. roseum* (now *prinophyllum*) and found evidence of hybridization between the two.

Skinner thought *R. flammeum*, the Oconee azalea in central Georgia was "a rather confused species" that "has been on too familiar terms with the aggressive *R. canescens*." He found with the Oconee azalea, which he called by the old name *R. speciosum*, intermediates in characteristics and habitat between *R. alabamense* and *R. canescens*.

On Spruce Knob Mountain in West Virginia Skinner found *R. calendulaceum*, *nudiflorum*, and *roseum* all growing and blooming together. Skinner assumed there triple matings were occurring:

> bizarre in the extreme – short and tall bushes bearing large or small flowers in every color from coral pink through salmons to rich lavender, pale yellow or pure white. The last was large flowered and otherwise identical with the Flame Azalea.

Skinner also climbed up to Gregory Bald and saw the well-known swarm of hybrids there.

In some other instances, Skinner's assumptions of hybridization were incorrect. For example, *R. colemanii* is not an *alabamense* hybrid (Zhou) [8].

Plantsman David Leach was primarily an evergreen rhododendron expert, but because they were in the genus he did investigate native azaleas. He provided conclusive evidence that *R. furbishii*, called a species by Walter Lemmon, was instead a hybrid and not a species. He proved this by crossing *arborescens* with *cumberlandense* and producing identical results. He also crossed *furbishii* with *furbishii* and produced some *cumberlandense*- and some *arborescens*-looking plants (Leach) [9].

In June 1958, Leach was invited to Hendersonville, North Carolina, to tour rhododendron and azalea populations. For Leach the visit was an epiphany. He wrote (*Quarterly Bulletin ARS* 12:1)[10]:

> The overwhelming impression of the azaleas is their massive diversity, far surpassing anything that the botanists have led us to expect. The North Carolina azaleas are a vast, amorphous population shifting endlessly in a dynamic evolutionary phase in which crosses in the wild and great masses of natural hybrids are commonplace. A revelation awaits any student of the genus ...
>
> The travelling enthusiast might just as well leave his botanical keys at home. They are useless in any attempts to identify species in countless hybrid swarms which are encountered at every hand....
> ... They are a geneticist's dream, but they are a taxonomist's nightmare....

Leach went on to say the evidence is indisputable that azaleas are in flux, and the species in typical form are often the exception in "...vast seas of Azaleas undergoing introgressive hybridization." He recognized that our wild populations often refuse to fit into the classifications we call species. Instead they are intergrading hybrids constituting uninterrupted progressions of variations linking them to their ancestry.

Leach did not think the so-called hybrids had a genetic disadvantage. In some sites he saw them thriving more than their progenitors.

I believe Leach's observations are astute and still hold true.

Kathleen Kron was aware of all of the above and more when she wrote her 1987 PhD dissertation on revisions in *Rhododendron* section *Pentanthera.* Kron recognized that natural hybrids and hybrid swarms occur; however, she dismissed widespread natural hybridization, arguing only occasionally do actual habitat and flowering time overlap.[5]

In the 25 years since Kron rejected Skinner's and Leach's field observations of widespread natural hybridization, more and more observers have had a chance to study azaleas in their natural habitats. There is absolutely no doubt Kron was incorrect in her conclusion. Consider the following:

- We have found on many occasions "running arbs" in the Southern Appalachians, as did Henry Skinner, characteristic of the smooth-stem *R. arborescens* mixing with the highly stoloniferous *R. viscosum* var. *montanum*.
- Clarence Towe can show many examples of *R. periclymenoides* crossing with *R. calendulaceum*, the flame azalea, in South Carolina.
- John and Sally Perkins can show examples in Audra State Park, West Virginia of *R. prinophyllum* or *R. periclymenoides* crossing with the flame azalea. These probable *calendulaceum* crosses are strongly suggested by the hybrids being triploids, crosses of the diploid with the tetraploid. These crosses have been verified by ploidy testing.
- In the Florida Panhandle, Ron Miller can show tall *R. canescens* crossing with the low-growing and spreading *R. viscosum* var. *aemulans*, yielding a low, pink, colonizing plant.
- On Mt. Cheaha in Alabama, one can find *R. cumberlandense* in large numbers. Blooming earlier is *R. canescens* and later is *R. arborescens*. Yet sometimes the bloomings overlap. The obvious hybrids are outstanding.
- On Hurricane Creek in Lumpkin County, Georgia, where thousands of *R. canescens*, *calendulaceum*,

and *arborescens* reside, dozens of triploids plants have been ploidy tested. These plants often grow within a few feet of each other.

- Even some of the tetraploid plants seem to have long-term introgression with the diploids. How otherwise does one get a large-flowered strong pink tetraploid azalea with an orange blotch?
- Already mentioned is *R. flammeum*, the Oconee azalea. This azalea is often found with *R. canescens* and its intermediates. In Fulton County, Georgia, near the old Roswell Mill, *R. canescens*, *R. calendulaceum*, *R. flammeum*, and hybrids are all growing together.
- In Cherokee County, Georgia, is a location that has produced large numbers of tested triploids.

More and more natural crosses of the named species are being discovered. There is no doubt that given the chance most of our natives will cross and have for many, many years. The only way to untangle the mysteries is DNA testing and more ploidy testing.

To be continued.

Ploidy

Ploidy is a term that has to do with the number of sets of chromosomes a plant or animal has. Almost all animals have two sets of chromosomes and are called diploid, di = 2. Humans receive one set from each parent, the X and Y chromosomes. It is not unusual for some plant genera to exhibit different levels of ploidy. Diploid= 2 sets, triploid = 3 sets, tetraploid = 4 sets, and so on. Having more than 2 sets is call polyploidy. In sexual reproduction, tetraploids and higher polyploids have more genetic material to work with. This gives them a better chance at long-term survival. Triploids are usually sterile due to the odd number of chromosomes. Think of seedless grapes or other fruit. In native azaleas, we now know that *R. atlanticum, R. austrinum, R. calendulaceum*, and *R. colemanii* are tetraploid. All others are diploid. In some cases, ploidy testing may be the only way to separate one species from another similar one, e.g., calendulaceum from cumberlandense, or species from triploid hybrid.

DNA

DNA is an acronym for deoxyribonucleic acid. It is a chain of nucleotides, atoms of hydrogen, oxygen, nitrogen, carbon, and phosphorus, carrying the genetic instructions used in the growth, development, morphological characteristics, functioning, and reproduction of all known living organisms. In plants, DNA is inherited from seed and pollen parents. Careful DNA studies with native azaleas can help determine the relationships between plants and can allow us to better understand the species.

References

1. Kron, Kathleen. "Rhododendrons". <http://users.wfu.edu/kronka/kakbek/Rhododendrons.html> and associated links. Accessed June 3, 2018. Kron's DNA studies show that deciduous azaleas may be more closely related to the elepidote rhododendron subgroup than to evergreen azaleas. Further, Kron found deciduous azaleas *R. molle* (Chinese azalea) and *R. arborescens* (sweet azalea) to be related closer to lepidote Rhododendron *R. edgeworthii* and other lepidotes than to the evergreen azaleas.
2. Cox, Hiden T. 1948. "Studies in the Comparative Anatomy of Ericales. I. *Ericaceae*—Subfamily Rhododendroideae." *The American Midland Naturalist*. 39(1): 220-245.
3. Copeland, Herbert F. 1943. "A Study, Anatomic and Taxonomic, of the Genera of Rhodendroideae." *The American Midland Naturalist*. 30(3): 533-625.
4. Frisbie, Leonard F. 1949. "Series Azalea: Subseries Luteum." *Quarterly Bulletin of the American Rhododendron Society*. 3(3). https://scholar.lib.vt.edu/ejournals/JARS/v3n3/v3n3-frisbie1.htm
5. Kron, Kathleen A. 1987. A Taxonomic Revision of *Rhododendron* L. Section *Pentanthera* G. DON (*Ericaceae*). 425 pages. Ph.D Dissertation. University of Florida.Available for download at Internet Archive <https://archive.org/details/taxonomicrevisio00kron>. See also Kron, Kathleen A. 1993. "A Revision of Rhododendron Section Pentanthera." *Edinburgh Journal of Botany*. 50(3): 249-364.
6. Bowers, Clement Gray. 1936 (2nd ed. 1960). *Rhododendrons and Azaleas: Their Origins*,

Cultivation, and Development. New York: The MacMillian Company.

7. Skinner, Henry T. 1955. "In Search of Native Azaleas." *Morris Arboretum Bulletin*. 6(1): 3-10; 6(2): 15-22.
8. Zhou, Wenyu, et al. 2008. "*Rhododendron colemanii*: A New Species of Deciduous Azalea (*Rhododendron* section *Pentanthera*; *Ericaceae*) from the Coastal Plain of Alabama and Georgia." *Journal American Rhododendron Society*. 62(2): 72-78.
9. Leach, David G. 1959. "The Re-Creation of a Species." *The Garden Journal* (NY Botanical Garden). 3-4.
10. Leach, David G. 1958. "A New Look at the Azaleas and Rhododendrons of the Blue Ridge Mountains." *Quarterly Bulletin of the American Rhododendron Society*. 12:1. <https://scholar.lib.vt.edu/ejournals/JARS/v12n1/v12n1-leach.htm> Accessed June 3, 2018.

Charles Andrews of Cumming, Georgia, is vice president of the ASA, a member of the Vaseyi Chapter of the ASA, and a former member of the Oconee Chapter. He is a plant lover in general, but his heart is with azaleas. He enjoys writing and speaking on azalea topics, contributes articles to The Azalean, and serves on the journal's Editorial Advisory Board. He also serves as president of the Azalea Chapter of the ARS. For over 35 years, Charles has been studying American deciduous azaleas. He and like-minded "azaleaphiles" spend many hours hiking in the field each year trying to better understand the distribution, habitat, characteristics, and dynamics of this amazing plant complex, primarily found in eastern North America. He believes these plants deserve more scientific study and horticultural emphasis.Charles is working to make accurate information on the history, identification, distribution, and culture of native azaleas more available.

Photo William C. Miller III

◄ The entrance to the visitor center at Garvan Woodland Gardens gave us an elegant hint of what was to come in the Garden of the Pine Wind during the 2018 convention. (See related article, p. 28).

Recruiting New Members

Membership Chairman Robert Thau—Jasper, Texas

Recruiting and maintaining members is a continuing issue faced by the society and its chapters. I have had great success in signing up new members in the Jasper area and want to share some approaches that have worked for me.

- ▶ I approached the Jasper Master Gardeners about two years ago and offered to do a workshop and give a tour of my garden. The goal was to provide greater exposure to the Azalea Society of America. This was the start of many talks and workshops and has resulted in more society visibility and more new members.
- ▶ I encourage members to contact local garden clubs and master gardeners and introduce them to the ASA. You will often find that they never knew there was an azalea society. They also are frequently surprised at the number of cultivars there are.
- ▶ I give tours of my garden and collection, which totals over 800 cultivars with more on the way. I tell them how they can propagate and care for the azaleas and do a "hands on" demonstration for those who are interested. Those who are ASA members—or become members at the demonstration—are given a cutting from my garden, and they provide me feedback on their propagation results. The word is getting out. I've been getting calls from people I don't know, wanting to see my garden.
- ▶ Our chapter has also joined the Jasper Chamber of Commerce and they have joined the ASA. They have been a great help in promoting the ASA.
- ▶ We also worked to get Jasper designated as an Azalea City in time for their 30th Year Festival. The local news and radio also played a big role with coverage and news articles. I walked into my bank and the teller knew about my garden and the ASA and asked me how to join. She signed up and got a free azalea for joining.
- ▶ I was asked to sponsor a 7th grader, who loves plants, for a junior high school Study Fair for gifted and talented students. I worked with her to teach her the basics of growing and caring for azaleas. She had a display of several azaleas, a poster and pictures of some of the new varieties, and ASA membership information trifolds. When people came by, she would explain her display to them. She received an award for her display. I was proud of her. She and her mother are now members of the society.
- ▶ One member was excited about propagating azaleas but had no place to get cuttings. By being a member, I told her I will supply her with cuttings. She received about 125 cuttings to place in her newly constructed hot box.

These approaches have worked for me. I know there are many more ways of recruiting new members. If you have other successful approaches, please let me know so that I can share them with other chapters. Contact me at: rwillbubbathau@yahoo.com.