



RMBS

January 2018

Volume 50 Issue 1

January President's Message

by Tom Anglewicz

Taking Stock and Looking Forward

As I write this message on the very first day of 2018, I want to wish all of you a very happy and successful New Year!

It is traditional, and appropriate, to take stock of where we've been and where we're going at the end of every calendar year. On December 9th, we convened a planning meeting of the new RMBS executive board for 2018. This was not a typical business meeting of the board, but rather a freewheeling brainstorming session that focused on what we are doing well as a society, what we could be doing better, and how this evaluation might translate into goals, objectives and programs for the new year. The results of this meeting will be

presented and discussed at our regular January meeting on the 9th.

I would, however, like to take this opportunity to highlight some of my own personal observations on these topics.

I have often emphasized that the key mission of RMBS is *education* – providing the avenues for all our members to expand their knowledge of bonsai. I continue to believe that this should be our number one objective. But this is often easier said than done because our membership is not homogeneous. Some members are more heavily committed than others; some have less experience than others; and some are just being introduced to the art form.

So, when I ask myself what we have been doing well, as a club, I tend to focus on the

different ways that we can bring educational value to a diverse membership. **Looking back at 2017, here are some positive notes, from my perspective:**

- Our monthly meeting programs have generally been informative and stimulating, and I am encouraged by the substantial turnout for most of them.
- I am very excited about the number of new members we have garnered in 2016 and 2017, many of whom are young or just beginning their bonsai experience, and some of whom have become very active within RMBS.
- Our visiting artist programs, through both demos and workshops, have been inspirational and well received. While workshops are often geared to more experienced practitioners, newer members are beginning to find that they can learn a lot as observers.
- We have strengthened the fiscal future of RMBS through improved budgeting and financial management, by maintaining dues income, and by identifying alternative sources of income. Financial health is essential to achieving educational goals.
- Our informal Saturday workshops have become more effective by focusing on basic skills that are necessary in order to grow as a bonsai practitioner.
- Our annual bonsai show was the best ever and is our most important tool for communicating our art form to the community.

I believe, however, that we do have areas for improvement in 2018. Here are some of my thoughts on that front:

- While we continue to bring new members into the club, we need to provide an educational framework so they can continue to grow and develop.
- We need to continue our highly respected guest artist program, but we need to supplement it with serious programs and workshops by experienced members within the club who are willing to teach.
- We need to reinstate a program of mentorship for newer members by identifying experienced individuals who are willing to team with them to further their knowledge, one-on-one.
- We need to accelerate the effort to redesign our website to make it a more formidable learning resource, for all our members.
- We need to make our monthly meetings even more effective and stimulating by inviting members to bring in more trees as examples of what can be accomplished, by offering a bonsai help table to assist members with issues or problems, etc.
- Finally, we need to do a better job of delegating and sharing responsibilities for all our events and activities. We need more members to step up and participate, in an organized way.

I know that we can continue to grow and become even more effective in 2018. I welcome your input, especially to the discussion that we will have in our January

meeting. We have an outstanding and committed board going into the new year, but we need the active involvement of all our members to achieve our goals. When I talk to people outside Colorado, I hear that RMBS is one of the most respected bonsai societies in the country. Let's keep it that way but make it even better!

Tom Anglewicz

2018 SCHEDULE OF MEETINGS AND ACTIVITIES

Date and Location	Agenda or Program
<p><u>Monthly Meeting</u> January Tue, January 9th, 7:00 – 900 pm Gates Hall Denver Botanic Gardens</p>	<p><u>SHORT PROGRAM</u> MEMBER SURVEY RESULTS / RMBS BOARD FOCUS FOR 2018 TOM ANGLEWICZ & CONNIE GARRETT <u>LONG PROGRAM</u> BECOMING A BETTER BONSAI ARTIST – DESIGN PRINCIPLES AND CONCEPTS LARRY JACKEL</p>
<p><u>Monthly Meeting</u> February Tue, February 6th, 7:00 – 900 pm Plant Society Building Denver Botanic Gardens</p>	<p><u>SHORT PROGRAM</u> RMBS HISTORY PATRICK ALLEN <u>LONG PROGRAM</u> BUILDING STANDS PATRICK ALLEN</p>
<p><u>Echters Expo</u> March Sat/Sun Mar 3rd & 4th</p>	<p>RMBS WILL SPONSOR A BOOTH DARELL HAVENER</p>
<p><u>Monthly Meeting</u> March Tue, March 6th, 7:00 – 900 pm Plant Society Building Denver Botanic Gardens</p>	<p><u>LONG PROGRAM</u> PREPARING FOR SPRING PANEL OF RMBS MEMBERS</p>
<p><u>Monthly Meeting</u> April Tue, April 3rd, 7:00 – 9:00pm Plant Society Building Denver Botanic Gardens</p>	<p><u>PROGRAMS TBD</u></p>
<p><u>Saturday Workshop</u> April Sat, April 21st (weather fallback to the 28th) Adam Johnson's home in Boulder</p>	<p><u>REPOTTING WORKSHOP</u></p>
<p><u>Nursery Stock Excursion</u> April Date TBD</p>	<p>DARELL HAVENER</p>
<p><u>Monthly Meeting</u> May Tue, May 1st, 7:00 – 9:00pm Plant Society Building Denver Botanic Gardens</p>	<p><u>PROGRAMS TBD</u></p>
<p><u>Takayama Park Event</u> May Sat, May 19th, 9am - noon</p>	<p>TAKAYAMA PARK 3700 Cherry Creek N Dr, Denver, CO 80209 DARELL HAVENER</p>
<p><u>Guest Artist – Todd Schlafer</u> May Sun, May 20th, 9am – 4pm Plant Society Building Denver Botanic Gardens</p>	

MEMBER FORUM

This is a new section in the newsletter. Each month one board member will contribute an article. The topic is theirs to choose as long as it relates to bonsai. Mike Britten has provided the article for this month. Members are encouraged to submit articles as well.

Photosynthetic rates of Rocky Mountain pines

Mike Britten

As bonsai enthusiasts, we understand that different species have different water, soil and light "preferences" and know conifers need more light than broadleaved trees to grow vigorously and maintain health. Since I grow a variety of pines, including some Colorado natives, I did some library research to better understand photosynthesis in pines. The graph shows carbon uptake rates for some native Colorado pines (and aspen) from different studies summarized by Rundel and Yoder (1998). The aspen rate was reported by Brodribb and Feild (2010). The rates are the amount of CO₂ leaves remove from a lighted and sealed chamber per leaf surface area (1 m²) per second.

The photosynthetic rate of aspen is at least 2X greater than the pine rates. This is generally true; broadleaved angiosperms are much more efficient at fixing carbon and manufacturing carbohydrates than conifers. This may be the main reason angiosperms have come to dominate the world's flora (Brodribb and Feild 2010). There is a tradeoff however, to support rapid photosynthesis, aspens must utilize more water.

Knowing the relative photosynthetic rates of pines and other trees can help to understand the distribution of trees growing in the Front Range. On productive sites with adequate precipitation with thicker more organic soils (that retain water well); aspen can outcompete and dominate conifers (as long as elk don't get them). Conifers are "pushed" to poorer sites, with less competition and, therefore, more sun. Generally, the poorest sites where trees

will grow are at the elevation extremes (below ~6,000 feet and above ~10,000 feet) but the poorer sites are also on rocky and disturbed areas where soils are poorly developed or non-existent.

Lodgepole pines have the highest photosynthetic rate of our native pines and dominate the others on mid-elevation, wetter sites. They are also fire-adapted, quickly dispersing into recently burned productive areas where they grow relatively quickly to produce another cone crop before aspens and other conifers (e.g. spruce) "can catch up" and shade them out. Lodgepole pine adaptations to fire include serotinous cones which don't open at maturity; rather they open and release their seeds when high temperatures (above about 120 deg. F) break the resinous bonds between the cone scales (Lotan 1976).

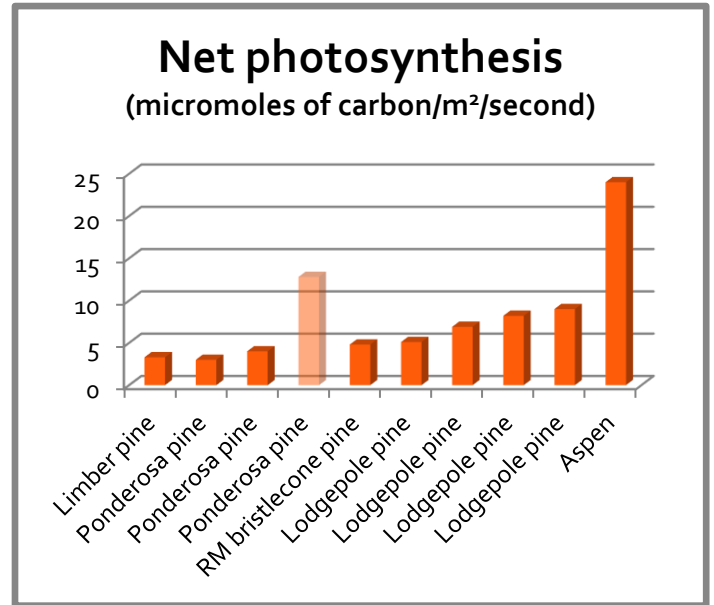
Ponderosa pines with lower photosynthesis rates generally grow at lower and drier sites than lodgepole pines (note: the high rate for ponderosa pine represented by the "faded bar" comes from an unpublished study). Ponderosas are also rare W of the continental divide, likely because the W side gets more snow and rain giving other conifers and trees a competitive advantage.

Limber pines (and bristlecone pines), with low photosynthetic rates, can't compete on productive sites (unless the competitors have been removed) and are pushed to the least productive areas; "upper treeline" sites (as high as 11,000+ feet) with very poor (or no) soils and high winds. Here, they are almost free of competition and grow and survive to reproductive age (some live many for centuries). Fortunately, what they lack in photosynthetic capacity, they make up for in ability to withstand drought, extreme temperatures, and desiccating winds. At lower elevations limber pines only occur on the driest rocky outcrops and ridges. They are also found at some "lower treeline" sites (very dry areas where their only tree competitors are

junipers); for example they grow on bluffs in the Pawnee Grassland at ~5,400 ft.

My reading helps me understand an apparent contradiction: wild limber and ponderosa pines with low photosynthetic capacity grow beautifully on very dry sites – but my pine bonsai grow best with daily (or twice daily) watering. Why this difference? Wild trees will have more extensive root systems and access to water in stored in the substrate than our domestic bonsai in their tiny pots. This allows wild pines to endure dry periods. Wild pines **could** grow well on productive sites but, only if there aren't more photo-efficient trees present.

My "take away" relative to bonsai; it's important to place pines in the sunniest locations in my yard and to rotate them regularly so all branches and foliage pads get sufficient sun. I'll also pay more attention to "placing" branches and foliage pads (e.g., when I wire them) so higher branches don't shade out lower branches causing them to decline and become a liability to the overall health and vigor of the tree.



Citations:

Brodribb, T. J. and T.S. Feild. 2010. Leaf hydraulic evolution led a surge in leaf photosynthetic capacity during early angiosperm diversification. *Ecology Letters* 13: 175–183.

Lotan, J. 1976. Cone serotiny - fire relationships in lodgepole pine. In: *Tall Timbers Fire Ecology Conference Proceedings 14*, Tall Timbers Research Center, Tallahassee, FL. pp. 267-278.

Rundel, P.W. and B.Y. Yoder. 1998. Ecophysiology of pines. In *Ecology and Biogeography of Pinus*. D.M. Richardson, editor. 1998. Cambridge Univ. Press. 527 pp.

Photo captions:

Windswept limber pine growing at upper treeline on a rocky ridge in Rocky Mountain National Park, CO.

Limber pines growing at ~5,200 feet in the Pawnee Grassland, near Grover, CO.

NEWS FOR MEMBERS

Membership Renewal:

RMBS has adopted a policy where all membership renewals occur on July 1, and cover the succeeding 12 months, ending on June 30th.

All memberships renew this summer on July 1st, 2018. Individual memberships are \$35 per year and family memberships are \$50 per year.

You may pay via cash or check at any monthly meeting, or mail your check to the address below. If you mail your check please be sure to include your email address and telephone number.

PAYMENT ADDRESS:

Rocky Mountain Bonsai Society
c/o Membership Renewal
PO Box 271043
Louisville, CO 80027

Akadama for sale by RMBS

There is still Akadama available for sale from last year's order. There are three bags of the larger size left. All will be in 14 liter bags at a cost of \$48/bag. Todd, and others, have ordered and used Akadama from this supplier. It is very good quality. Contact Todd and he will bring it to the next Tuesday meeting where you can pick up and pay.

Discounts Available to Members

We have an account established with Way to Grow Gardening Supply in Denver. You can receive discounts on some items up to 15%. You will need to tell them you are a member of RMBS.

Classified Ads:

Summit Bonsai – Dusty Kraft is offering a discount to RMBS members on pre-sifted soil.

He has set up a special code for a 5% discount on the pre-sifted soil he sells online. The code is "RMBS5". It can be entered at the checkout on the website, www.summitbonsai.com.

If anyone wants to come to save on shipping, it would be best that they contact Dusty directly at summitbonsai@gmail.com or [\(970\)405-0331](tel:(970)405-0331). They can pick it up in Greeley or he can meet them somewhere if his schedule allows.

Resources for Members:

Other internet resources:

[RMBS Web Site](#)

[Colorado Bonsai Ltd.](#)

[First Branch Bonsai](#)

[S&S Bonsai](#)

[Summit Bonsai](#)

[RMBS Facebook Page](#)

[Mike Horine Website](#)



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We carry many trees that you will not see on our website. We suggest coming by to see them. We only ask that you call ahead and make an appointment to make sure we will be there.



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We're located on the west side of the Denver Metro area, near I-70 and Youngfield.

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