STAFF

Emily Cook, *Invasive Species Outreach Specialist*
Scott Hughey, *NRCS District Conservationist*
Aimé Merizon, *Outreach Coordinator*
Jodi Monteith, *Aquatic Invasive Species Educator*
Tad Peacock, *Executive Director*
Jane Perrino, *Aquatic Invasive Species Coordinator*
John Ransom, *Conservation Specialist*
Kama Ross, *District Forester*

BOARD MEMBERS

Roberta Dow, *Vice Chair*
Bill Henning, *Treasurer*
Ron Heverly, *Chair*
Greg Kindig, *Director*
Caitlin Lorenc, *Director*

Thanks to these committed sponsors who help make this catalog available to our community:

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*Riverside Canoe Trips*
*State Savings Bank*
*The Ant & the Grasshopper Farm*
As we head into the fall season, we at the District are having a very active and productive summer. Some highlights include hosting our first-ever Garden Party: Nature Art Auction, which was a huge success. Many local artists contributed their fine works for the cause, including our own BCD staff! All in all, over twenty-five hundred dollars was raised toward funding experiential education programs for area students.

We’ve also been diligently working on two very significant grant opportunities: one from the Michigan Invasive Species Grant Program (MISGP) which would fund our Aquatic Invasive Species Pathways project; and another is from the Non-point Source program through the Department of the Environment, Great Lakes & Energy, which would address storm water runoff and e. coli remediation in Crystal Lake.

Our district forester works hard to address the pests that endanger the health of other local resources such as our forests. Kama is available to come to your home and assess what’s going on with woodlots, or a single tree.

Our Natural Resources Conservation Service (NRCS) is loaded with programs that help the local agriculture community with best management practices and provide funding for cost sharing of projects.

We’re always happy to share what’s going on at the District! Feel free to stop in or contact any of us for more information. Enjoy these warm days of late summer, and as always, we greatly appreciate your support!

All the best,

[Signature]

ANNUAL MEETING

Wed, November 13th • 6:30 to 8:30 pm
Mills Community House
Benzonia

SAVE THE DATE!
**CONIFERS**

**RED PINE** *(Pinus resinosa)*
- **Height:** 60’ to 80’  
  **Rate of growth:** fast  
- **Soils:** sandy, well-drained soils  
- **Size:** 2-0 seedlings: 4-8”; 2-1 transplants: 5-10”  
  Perfect for most of Benzie County! Straight, tall stems create natural fence or windbreak. Plant a red pine plantation as an investment. Prefers full sun and is shade intolerant and extremely cold tolerant.

**WHITE PINE** *(Pinus strobus)*
- **Height:** 80’ to 150’  
  **Rate of growth:** fast  
- **Soils:** light, sandy to heavy textured soils  
- **Size:** 2-0 seedlings: 4-8”; 2-1 transplants: 5-10”  
  Michigan’s state tree. Soft, five-needle bunches; welcomes variety of songbirds and wildlife. Full sun and partial shade. Provides privacy and protection from the wind.

**BALSAM FIR** *(Abies balsamea)*
- **Height:** 45’ to 65’  
  **Rate of growth:** med to slow  
- **Soils:** prefers moist, well-drained acidic soil  
- **Size:** 3-1 seedlings are 6-12”  
  Aromatic tree with strong, soft needles. Popular uses include yard and Christmas trees. Plant in sun to partial shade for color and cover in northern hardwoods.

**EASTERN HEMLOCK** *(Tsuga canadensis)*
- **Height:** 40’ to 70’  
  **Rate of growth:** med to slow  
- **Soils:** prefers moist, well-drained acidic soil  
- **Size:** 2-1 seedlings are 4-8”  
  Shade tolerant; important for shelter and cover and seeds for wildlife species. This elegant evergreen has branches that are feathery and often droop at the ends; needles form flat, horizontal sprays on the twigs.
CONIFERS

WHITE SPRUCE (Picea glauca)
Height: 60’ to 75’  Rate of growth: medium
Soils: acidic, clay, drought tolerant, loamy, moist, sandy, well-drained soils
Size: 2-0 seedlings are 4-10”
Christmas-tree shape compliments the yard, good for windbreak and wildlife habitat. Does well in full sun. Wood used for pulp and lumber.

EASTERN REDCEDAR (Juniperus virginiana)
Height: 40’ to 50’  Rate of growth: medium to fast
Soils: loamy, moist, sandy, well-drained & clay
Size: 2-0 seedlings are 6-12”
Technically a juniper, it’s dense pyramid shape is excellent for windbreaks and screens. Birds love its fruit. Medium green foliage. Likes full sun. Tolerant of most soils.

NO. WHITE CEDAR (Thuja occidentalis)
Height: 30’ to 50’  Rate of growth: slow
Soils: cool, moist, nutrient-rich soils
Size: 2-1 seedlings are 5-10”
Known to grow in swamps, but like well-drained, slightly alkaline soils. Partial sun and shade. Good for hedges and windbreaks. Browsed by deer; cover and nesting for birds.
GRASSES & SEEDS

ECO-TURF GRASS SEED MIX
Height: 4” to 6” Rate of growth: slow
Soils: loam/sand/gravel and well drained clay
Coverage: 1 pound covers 200 square feet
These deep-rooted native fescues are an alternative to traditional mixes. No intense watering, mowing or fertilizing. Choose not to mow and enjoy a soft look lawn. Full sun/partial shade. Contact us for Quantity Discount Pricing!

BIG BLUESTEM (Andropogon gerardii)
Height: 6’ to 8’ Rate of growth: medium
Soils: medium to well drained soils; adaptable
Coverage: 1 ounce covers 200 square feet
Attracts butterflies; deer resistant; acts as claybuster. In late summer produces distinctive three-parted seed heads. The green leaves and stems change to reddish-copper for nice winter appearance. Top choice for erosion control.

LITTLE BLUESTEM (Schizachyrium scoparium)
Height: 1’ to 3’ Rate of growth: medium
Soils: ranges from sandy to clay-loam
Coverage: 1 ounce covers 200 square feet
Wonderful for a border or dry garden; great erosion control. The foliage is soft, textured, and green or bluish, turning orange in autumn. Flowering plumes grow in clumps like bunchgrass. Excellent nesting and roosting site.

INDIAN GRASS SEED (Sorghastrum nutans)
Height: 5’ to 7’ Rate of growth: medium
Soils: ranges from sandy to clay-loam; tolerant
Coverage: 1 ounce covers 200 square feet
Birds love the golden seedheads in autumn. Also great winter interest. Can tolerate wet to dry soils from sand to clay. Plant with Little Bluestem for a fabulous fall combination and landscape backdrop. Full sun.
GRASSES & SEEDS

BCD POLLINATOR SEED MIX
Height: varies  Rate of growth: med to fast
Soils: formulated for sandy soils
Coverage: 4 ounces covers 500 square feet
Attracts pollinators: bees, wasps, butterflies, moths, beetles, and flies. Includes 13 native wildflowers. Best to plant in proportion to grass mix for better stability on cleared ground; keep moist during germination.

COMMON MILKWEED (Asclepias syriaca)
Height: 2’ to 5’  Rate of growth: fast
Soils: sandy, clayey, or rocky calcareous soils
Coverage: Approx 150 seeds/gram
Common variety produces profusion of lavender flowers in mid-summer and is mandatory food source for Monarch caterpillars who feast on the leaves. Can be toxic if ingested.

DUNE GRASS (Ammophila breviligulata)
Height: 2’ to 3’  Rate of growth: fast
Soils: sandy soil
Coverage: varies depending on planting grid
Natural erosion control. Grass forms a dense cover in sandy areas. Plant 6” - 8” deep, one stem per hole in a 12” up to 18” square grid, depending on flatland or slopes. 100 plugs per bundle or bunch. Keep roots moist before planting.
PLANTSKYDD REPELLENT
Safe and effective deer, rabbit, and rodent repellent. Dried blood (porcine and/or bovine) is the main ingredient. Browsing animals smell what they believe is a predator. Reapply as needed. **Powder concentration: 1 lb. makes 4 quarts**
**Granules canister: 1 lb., sprinkle to distribute**

BOBBEX DEER REPELLENT
Bobbex Deer Repellent is environmentally-friendly and proven effective at repelling deer, moose, and elk from browsing and causing damage to ornamental plantings, shrubs, and trees. Protect your seedlings from deer browse. *(Rated #1 in independent study conducted by the CT Department of Forestry and Horticulture.)* Ready-to-spray, 32 oz. bottle.

TERRA • SORB
Helps retain the moisture of the roots on the trees when planting. One ounce packet of Terra-Sorb granules covers approximately 1,000 seedlings. If using 1 oz., mix with 1 1/3 gallons of water for dipping bareroot plants. After stirring, turns to gel to coat seedling roots immediately before planting. Can be used on all seedlings.

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**State Savings Bank is a full-service community bank dedicated to caring for the financial needs of our neighbors in northwest Michigan**

231.352.9691
online@ssbankmi.com
www.ssbankmi.com
SUPER HOT® COMPOST STARTER
Great product to use with our compost tumbler! Contains blood meal, bone char, alfalfa meal, kelp meal, pasteurized poultry litter, natural nitrate of soda, feather meal, and peanut meal. 7-lb. resealable bag. Activates eight bushels (approx. 10 cubic feet) of compost materials.

DUAL-BIN COMPOST TUMBLER
Produce high quality compost quickly and efficiently. Let one bin “cook” while you add fresh compost materials to the other side. Two bins rotate separately; each bin holds approximately three cubic feet of compost materials. Recycled plastic. Need to assembly.

“HEEL IN” If You Can’t Plant Right Away

- Plants easily become damaged if roots lose moisture for even a short time.
- Keep roots wrapped in moist paper but do not saturate.
- Store seedlings up to 48 hours in a cool, moist, shaded place.
- If not able to plant within this time frame, plants can be “heeled in.” Do so by first digging a trench. Unbundle seedlings and spread out in trench. Cover with soil and water in.
“TREES PLANTED” SIGNS
Protect your trees, your labor and your money. Alert vehicles and others to “keep off” your Michigan seedlings! These sturdy metal signs are 7” x 12.”

TREE MATS
Coir (natural coconut husk) mats help retain the moisture of the seedling roots and protects from weed growth after planting. Round mat has a diameter of 17” with cutout for tree trunk.

TREE TUBE & STAKE
These seedling protectors are 100% recycled polyethylene (milk jug plastic). They have a tab-flared top to protect seedling from sharp edges. Tube diameter is 4.15” (allows connecting multiple protectors for larger diameter) with vents starting halfway up to allow herbicide spray around the base. Cost per 4-foot tree protector includes one treated stake and ties.

TOPO MAPS
Topographical maps for sections of Benzie County:

<table>
<thead>
<tr>
<th>Bear Lake</th>
<th>Elberta</th>
<th>Platte River</th>
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<tr>
<td>Benzieonia</td>
<td>Empire</td>
<td>Pleasanton</td>
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<td>Beulah</td>
<td>Frankfort</td>
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MICHIGAN WILDLIFE: A Coloring Field Guide

Use this fascinating coloring book and field guide to learn about common, and unique Michigan animals. Included is a dictionary, and checklist for observing wildlife in Michigan. Created and written by Amalia Fernand, environmental educator and founder of Nature Explorers, International.

POCKET GUIDES

Handy, laminated foldout pocket guides. 12 choices:

- Animal Tracks
- Bats
- Bees & Other Pollinators
- Birds of Prey
- Butterflies & Moths
- Dragonflies & Damselflies
- Freshwater Fishes
- Michigan Birds
- MI Trees & Wildflowers
- Michigan Wildlife
- Mushrooms
- Reptiles & Amphibians
- Trout & Salmon

BENZIE COUNTY GUIDEBOOKS, by Jim Stamm

Benzie County Rivers, Lakes & Creeks: Explore paddling and fishing in Benzie County.
Benzie County Trail Guide: For hiking, biking, x-country skiing, and snowshoeing. All trails within an hour of Traverse City.
The Savvy Paddler: Here’s a great guide for recreational kayakers!

NATURE POSTERS

Printed on 80# coated stock using fade resistant inks; museum quality for framing.

- Fishes poster: includes 106 fish species.
- Bees poster: includes 130 bee species.
- Birds poster: includes 94 species.
- Butterflies poster: includes 79 species.
SPONSORS

The Ant and the Grasshopper Farm
4758 Joyfield Road
Herring Lakes Watershed
Benzie County, Michigan 49635

Gregory Kindig
231.383.3182
TheAntAndTheGrasshopperFarm@gmail.com

We accept Benzie County’s alternative currency: MIFiberShed fiber credits!

- Maple Syrup Classes & Equipment
- Composting Workshops & Worm Bins
- Natural Shoreline Landscaping
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- Energy Audits & Insulation Services

We will plant your BCD seedlings if the planting is keeping you from buying!

The Ant and the Grasshopper Farm
TheAntandtheGrasshopperFarm@gmail.com 231.383.3182

Crystal Lake & Watershed Association
Protecting Crystal Lake Now for Generations to Come

231.882.4001
crystallakewatershed.org
Facts about Eastern Redcedar

- The Eastern Redcedar (Juniperus virginiana) is an ancient tree, dating to aboriginal America, where fossil evidence indicates it covered large portions of the continent. Early explorers took note of the tree, saying they were “the tallest and reddest cedars in the world” when they arrived at Roanoke Island, NC in 1564. Colonial craftsmen lost no time in using the wood from the eastern redcedar for furniture and fences, as it had superior weathering capability and was easy to work with. The wood was a staple of the pencil industry for over a century until supplies became exhausted.

- Produces rounded fruit that is gray or bluish-green in color and about ¼” in diameter. This fruit resembles a berry but is actually a cone made of fused cone scales.

- The juniper fruit is eaten most extensively by cedar waxwings, which are named from this tree. It takes about 12 minutes for the seeds to pass through the birds’ digestive system; seeds that have been consumed by this bird have levels of germination roughly three times higher than those of seeds the birds did not eat.

- During the Dust Bowl drought of the 1930s, farmers were encouraged to plant shelterbelts (wind breaks) made of Juniperus virginiana throughout the Great Plains. They thrive under adverse conditions – both drought tolerant and cold tolerant, they grow well in rocky, sandy, and clay substrates. Competition between trees is minimal, so they can be planted in tightly spaced rows, and the trees still grow to full height, creating a solid windbreak in a short time.

- Should not be planted near apple trees due to cedar-apple rust. Cedar apple rust (Gymnosporangium juniperi-virginianae) is a fungal disease that requires juniper plants to complete a two year life-cycle. Spores overwinter as a reddish-brown gall on young twigs of various juniper species. In early spring, during wet weather, these galls swell and bright orange masses of spores are blown by the wind (up to 2-3 miles) where they infect susceptible apple and crab-apple trees. The spores that develop on these trees will only infect junipers the following year. From year to year, the disease must pass from junipers to apples to junipers again; it cannot spread between apple trees.

- On juniper, rust can be controlled by spraying plants with a copper solution (0.5 to 2.0 oz/ gallon of water) at least four times between late August and late October.
ORDERS DUE
Friday, September 27

ORDER PICK-UP
Friday, October 11
9:30 am to 5:30 pm
BCD’s backyard, off the alley
Fall Seedling Sale is here! Order via our online store: www.benziecd.org