

Berries for Birds:

Recommended backyard plantings for bird-friendly habitat in upstate NY

Susan Smith Pagano, School of Life Sciences, Rochester Institute of Technology, sbssbi@rit.edu

Food availability at migration stopover sites is likely to be one of the most important factors affecting the success of migration for songbirds. Many songbirds rely on seasonal wild fruits as a food resource during critical refueling periods throughout their fall migrations. Birds are often observed consuming the fruits of woody plant species; however, these fruits may vary substantially in their nutritional composition and value for refueling birds. Thus, it is important to consider the **nutritional quality** of fruits in addition to their **consumption** by birds when managing habitat.

The following information represents a compilation of data collected by several RIT undergraduate students through independent research projects. These projects have focused on analyzing the nutritional quality of common local fall fruits in the lab as well as field studies on fruit consumption by birds. It is recommended that landowners focus on **NATIVE** plants when maintaining or restoring habitat as these are most likely to directly benefit birds and maintain natural ecosystem functions.



Arrowwood Viburnum

Highly Recommended: high nutritional value and preferred by migratory birds

	% Fat	Energy density (kJ/g dry mass)
<i>Viburnum dentatum</i> (Arrowwood)	47	30
<i>Cornus amomum</i> (Silky Dogwood)	7	19



Silky Dogwood

Recommended: high nutritional value and consumed by migratory birds

	% Fat	Energy density (kJ/g dry mass)
<i>Cornus racemosa</i> (Gray Dogwood)	35	25
<i>Cornus sericea</i> (Red Osier Dogwood)	23	21
<i>Parthenocissus quinquefolia</i> (Virginia Creeper)	24	22
<i>Lindera benzoin</i> (Spicebush)	44	N/A




Gray Dogwood

Other species that may benefit migrating birds and overwintering birds

Sambucus nigra L. ssp. *canadensis* (Common Elderberry)

Ilex verticillata (Common winterberry)

Nutritional Quality of Common Wild Fruits at Braddock Bay Bird Observatory

Species	Fat (% dry mass)	Energy Density (kJ/g dry mass)	Total soluble solids - an estimate of sucrose (%)	Water (% fresh mass)	Quality for Birds
Natives					
Arrowwood <i>Viburnum dentatum</i>)	47.0 ± 0.5	30.2 ± 0.4	10.4 ± 0.6	58.0 ± 0.9	
Gray Dogwood (<i>Cornus racemosa</i>)	34.9 ± 1.7	25.4 ± 0.9	19.0 ± 0.1	67.8 ± 1.3	
Red Osier Dogwood (<i>Cornus sericea</i>)	23.4 ± 1.0	20.7 ± 0.5	13.0 ± 0.5	85.2 ± 0.6	
Silky Dogwood (<i>Cornus amomum</i>)	6.6 ± 0.8	18.8 ± 0.2	15.8 ± 0.2	79.8	
Common Winterberry (<i>Ilex verticillata</i>)	3.7 ± 0.7	19.9 ± 0.7	N/A	75.8 ± 0.6	
Riverbank Grape (<i>Vitis riparia</i>)	0.1 ± 0.0	15.5 ± 0.84	23.1 ± 1.1	73.6 ± 1.1	LOWER
Invasives					LOW
Common Buckthorn (<i>Rhamnus cathartica</i>)	0.7 ± 0.1	17.0 ± 0.5	39.1 ± 1.0	67.7 ± 0.3	
Multiflora Rose (<i>Rosa multiflora</i>)	1.0 ± 0.9	17.1 ± 0.1	31.0 ± 0.3	55.7 ± 0.7	
European Cranberrybush (<i>Viburnum opulus</i>)	0.9 ± 0.1	16.7 ± 0.2	13.4 ± 0.3	86.3 ± 0.9	
Bush Honeysuckles (<i>Lonicera spp.</i>)	0.7 ± 0.3	16.3 ± 0.3	10.8 ± 0.8	88.8 ± 0.2	