



Woodland Owner Cooperation

Dr. Shorna Broussard Allred, Gary R. Goff, Miles K. Luo, and Laura P. Wetzel

Why is Cooperation Important?

Landowner cooperation or “cross-boundary management” occurs when managers of adjacent ownerships jointly undertake management to achieve common goals” (Bergmann and Bliss 2004, p. 377). Through aggregation and cooperation across adjacent boundaries, benefits can be achieved that accrue both to the multiple owners and to society as well. Benefits include improved quality and connectivity of wildlife habitat and recreational areas, improved communication among landowners, improved economies of scale that can eliminate constraints associated with small parcel timber sales, and greater landscape level benefits (scenery, healthier ecosystems, etc.) (Kittredge 2003; Rickenbach and Jahnke 2006). Research has shown that private forest landowners are interested and hold favorable attitudes toward various forms of forest management cooperation (e.g. Jacobsen et al. 2000), but few projects have addressed the frequency of landowner cooperation through studies of actual behavior (Campbell and Kittredge 1996; Raedeke et al. 2001). This study provides insight on the frequency and context of interaction between woodland owners, as well as cooperative activities among these owners. Further analysis was performed to determine if there was any relationship between interaction and forestry knowledge.

Research Methods

In May 2008, a pre-tested mail survey was sent to two groups of woodland owners: 1) Master Forest Owner (MFO) Volunteers and 2) woodland owners (WO) receiving a visit from an MFO Volunteer. While MFO Volunteers are also woodland owners, in this study we use the term “woodland owners” to refer to those receiving an on-site visit from a Master Forest Owner Volunteer and present comparative results for these two groups. The MFO survey covered aspects of the MFO Program and forestry in general, including demographics, MFO activities, opinions of the program, and use of forestry knowledge. The woodland owner survey covered topics of why they own forestland, how they interact with other woodland owners, what kinds of topics and information are discussed among woodland owners, attitudes toward cooperating with other woodland owners, perceived forestry knowledge, and demographics. The response rate for the MFO Volunteer survey was 67% (n=95) and the response rate for the woodland owner survey was 56% (n=270).

Factor analysis, descriptive statistics, and T-tests were used to analyze forestry knowledge among respondents. The same tests were conducted among landowners who interacted with other owners and those who did not to determine if there was a relationship between perceived forestry knowledge and landowner interaction. For more information, please read the full report by visiting: <http://www.dnr.cornell.edu/hdru/pubs/forestpubs.asp>.

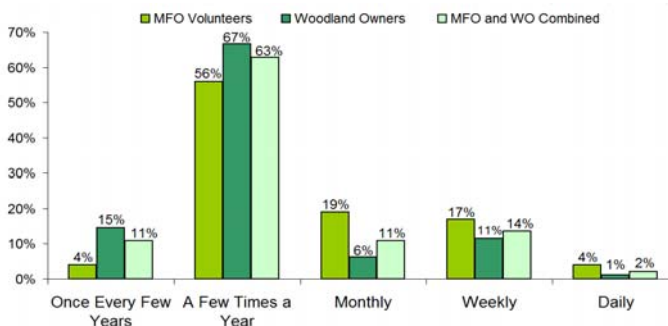


Interaction with Landowners

More than two-thirds of respondents (69%) indicated that they interact with other forest owners in their community regarding forestry matters. MFO Volunteers and woodland owners were both asked how frequently (Figure 1) and in what capacity they interacted with other landowners (Figure 2).

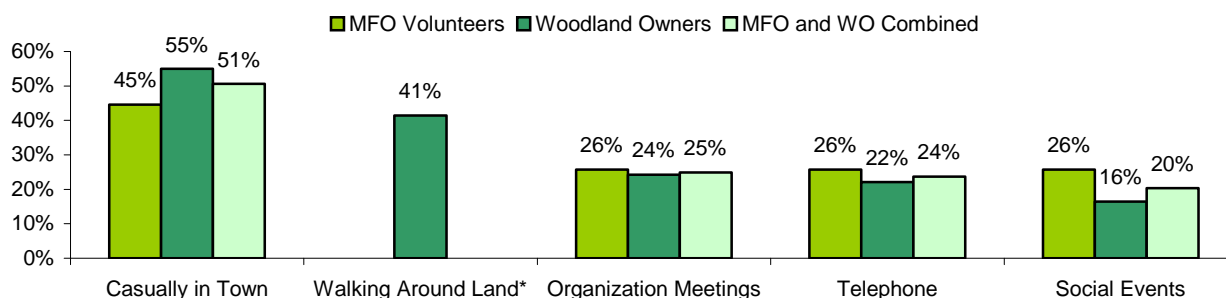
The largest percentage of respondents communicated with fellow woodland owners a few times per year. Very few landowners interacted with landowners in their community on a daily basis, while it was fairly common for interactions to occur weekly, annually, or every few years.

Figure 1. Frequency of interaction with area forest owners



Woodland owners commonly communicated with each other casually or incidentally around town (Figure 2). Although walking around their land was a frequent context among landowners, it was not included as a choice in the MFO survey. A notably high percentage of respondents (20%) indicated other circumstances for interaction with other woodland owners, such as being neighbors (15%), for work or business (15%), or attending various seminars or workshops (11%).

Figure 2. Context of interaction with area forest owners



*Walking around land was not an available option on the MFO survey. Thus, there are no MFO or combined columns for this choice.

Cooperation Among Landowners

Woodland owners and MFO Volunteers were asked if they cooperate with other landowners in their community on forestry-related activities. In the woodland owner survey, 193 respondents worked with others on a mean of 0.92 activities (min=0; max=9; SD=1.69). In fact, 66% reported that they do not work with other forest owners. Among respondents who do cooperate with other forest owners, both woodland owners and MFO Volunteers were most likely to watch for trespassers on each other's land, allow access to hunt on each other's land, and allow access to recreate on each other's land (Table 1). Cooperative activities, in which less than 5% of both samples participated were: riparian area management, selling timber together to get a better price, sharing costs of hiring a forester, jointly leasing land to hunting/fishing groups, sharing costs of labor, and coordinating the spraying of herbicides. While the sample sizes were too small to allow tests of statistical significance, MFO Volunteers appear to have higher rates of cooperation than other woodland owners.

Table 1. Current rates of cooperation among woodland owners

Activity	MFO	WO	Total
Watch for Trespassers on Each Other's Land	38%	23%	26%
Allow Access to Hunt on Each Other's Land	29%	14%	17%
Allow Access to Recreate on Each Other's Land	21%	12%	14%
Improve Wildlife Habitat Across Property	13%	7%	9%
Cut Firewood Together	15%	7%	9%
Share Tools or Equipment	19%	5%	8%
Coordinate Trail Building Across Each Other's Land	6%	5%	5%
Invasive Species Removal	13%	3%	5%
Coordinate Road Access	9%	4%	5%
Apply Jointly for NYS DEC Deer Mgmt Assis. Prgm.	10%	3%	5%

Relationships Between Interaction Among Landowners and Forestry Knowledge

Statistical analysis was used to determine if there was any relationship between landowner interaction and perceived forestry knowledge. Woodland owners were asked if they interact with other landowners and if they were familiar with various principles of forest management. Woodland owners who reported interacting with other forest owners had a mean familiarity score of 3.45 (1=not at all familiar and 5=very familiar), while woodland owners who did not interact with other forest owners had a mean familiarity score of 2.92. The mean score for the total population was 3.26, indicating a relatively neutral level of perceived forestry knowledge. Further analysis among those who do and do not interact with other forest owners shows that interaction was related to higher perceived forestry knowledge to 3.45 ($F=14.290$, $df=1$, $p<0.001$).

Conclusions and Recommendations

This study examined discussion oriented interactions among woodland owners as well as on-the-ground forest management activities. A majority of respondents reported interacting with other forest owners in their town or community regarding forestry matters, reflecting a sense of community among woodland owners. Most communicated with fellow woodland owners a few times per year and interactions were most likely to occur casually or incidentally in town.

For neighborly cooperative forestry-related activities, both MFO Volunteers and woodland owners were most likely to watch for trespassers and allow access for hunting or recreating on each other's land. MFO Volunteers typically have higher rates of cooperation than other woodland owners. Two-thirds of woodland owners did not engage in any joint activities with other forest owners and there was little collaboration on more active forest management activities, such as hiring a professional forester together or selling timber together. Regardless, interaction with other forest owners was associated with statistically higher perceived forestry knowledge.

Landowner programs and organizations such as the New York Master Forest Owner Volunteer (NY MFOV) Program are important because they are associated with higher rates of cooperation than the general population of woodland owners. Natural resource professionals may help to facilitate future cooperation, leading to increased general knowledge about forest resources. The results of this study, as well as similar research on the Maine Master Gardener Program and the Texas Master Naturalist Program, indicate that local peer-to-peer programs can encourage higher rates of cooperation and sharing of information that may ultimately lead to personal growth, economic benefits, more effective management of property, and healthier, higher-quality ecosystems (Peronto & Murphy 2009; Bonneau et al. 2009) While the NY MFOV Program currently encourages peer learning, it does not strongly emphasize cross-boundary management. Such emphasis may be beneficial towards increasing peer-to-peer interaction.

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Author Contact Information:

Shorna Broussard Allred, Ph.D
Associate Professor
Department of Natural Resources
Human Dimensions Research Unit
Cornell University
Office: (607) 255-2149
www.human-dimensions.org
srb237@cornell.edu

Gary R. Goff
Senior Extension Associate
Director of NY MFO/COVERTS Program
Cornell University
Office: (607) 255-2824
grg3@cornell.edu

Miles K. Luo
Research Assistant
Department of Natural Resources
Cornell University
mkl67@cornell.edu

Laura P. Wetzel
Research Assistant
Department of Biology and Society
Cornell University
lpw9@cornell.edu

For more information on the Master Forest Owner Volunteer Program, the Human Dimensions Research Unit (HDRU), our program areas, and past publications, please visit:
www.cornellmfo.info and www.dnr.cornell.edu/hdru.

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