IMA Concepts Adapted by Other Institutions

By Greg Sykes (greg@grsykes.com)

In 2006, the Fairfax County Park Authority (FCPA) launched a two-year pilot project called the Invasive Management Area (IMA) program. Briefly, volunteer site leaders were trained by FCPA staff to host habitat restoration workdays that 1) removed specific invasive plant species and 2) may involve native plant reintroductions. The site leaders had FCPA permission to work only on FCPA property; volunteers joining the session worked under an umbrella permit while the site leader was present. Royal Lake Park started IMA workdays in 2007 after I learned about the program and became a site leader. Since then, IMA evolved with different species added to the target list, techniques applied, additional site leaders, and expanded work zones within parkland.

While site leaders do their best to manage invasive plants within FCPA grounds, these weeds continue entering the parks by washing or blowing in from adjacent land, seeds eaten and deposited by wildlife, seeds tracked in by feet or fur, vegetative growth entering from nearby properties, and people illegally dumping yard debris that takes root. Many neighbors are addressing the invasive plants on their residential parcels and planting natives—and each neighbor doing so helps tremendously! What about larger entities? Here are stories of three such places that are adapting IMA concepts to their properties.

George Mason University's (GMU) Fairfax campus has 677 acres of which some sections remain natural areas. Within the western side of Patriot Circle is the Forager's Forest. Drs. Dann and Jen Sklarew, Environmental Science & Policy Department professors and KPW residents, invited me to see the new living lab. Formerly a clearance, it was replanted with Virginia native trees, shrubs, and forbs that have edible fruits, nuts, or other parts. On the western edge is a stream that underwent recent restoration on a smaller scale than the Shanes Creek project. Invasive species, such as English ivy, multiflora rose, oriental bittersweet, Higan cherry, Amur honeysuckle, Chinese and wax-leaf privets, leatherleaf Mahonia, Himalayan blackberry, and winter creeper, filled woodlands near the Forager's Forest and restored stream. I was asked about invasive species management and recommended strategies for these grounds. It included having me guest lecture a graduate ecology class where students learned field identification and techniques to remove invasive species on site. Another fieldtrip class involved touring the Shanes Creek restoration site with a DPWES representative. Since then, most invasive species removal efforts were in creating a buffer between the weedy areas and the Forager's Forest.

Robinson Secondary School is another academic center that recently launched an IMA-like program. Tory Karg , 7th grade science teacher, contacted me about hosting students for Royal Lake Park IMA workdays. Knowing that Robinson has many invasives species on campus, I asked if they would like to conduct habitat restoration on school grounds. This approach helps rid the school of noxious weeds,

Figure 1. Energetic volunteers haul invasive debris from Robinson's pilot site (woodlands in background) to a roll-off dumpster (A). Volunteers pull Japanese honeysuckle at the second Robinson habitat restoration location (B). Photos by Chris Townsend.

creates on-site classrooms, and allows flexible workday scheduling for students and teachers. We identified several sites that had both an invasive infestation and healthy native plant populations worth rescuing. The first workday was at an isolated forested plot north of Coffey Stadium. A ballfield, road, and parking lot delineated the trial site. During the inaugural workday, I identified the botanical friends and foes present, discussed the problems with invasive species, showed the tools used, and demonstrated proper technique to hand-remove target species. The invasives included English ivy, privets, Amur honeysuckle, Japanese honeysuckle, autumn olive, multiflora rose, winter creeper, and Bradford pear. Mature pear tree eradication will require maintenance crews to use chainsaws and herbicides, but students cut low branches laden with fruits so at least birds would not distribute those seeds elsewhere. Ms. Karg led additional workdays that completed invasive plant removal from the first site and moved onto other sections.

Lauri Snider of St. Stephen's United Methodist Church and KPW resident reached out to me after participating in several Royal Lake IMA workdays. Years earlier, her daughter, Jean Lee Ritter, earned IMA-based Girl Scout merit badges. Lauri wanted to remove invasive plants from approximately one acre of the church grounds' natural area to make it a more hospitable community resource. I met with Lauri and several other members of St. Stephen's congregation for detailed plant identification and to demonstrate eradication methods. Having worked with me, Lauri already had field experience. More than two dozen congregation members were enthusiastic about restoring a native habitat, resulting in excellent volunteer turnouts and donations for tools such as the weed wrench. St. Stephen's is conducting the urban forest renewal project in partnership with the United Methodist General Board of Global Ministries, an agency of the United Methodist Church that collaborates with partners in more than 100 countries to connect the church in mission and alleviate human suffering. The agency provided St. Stephen's with international networking opportunities, training and guidance aligned with United Methodist social principles through its EarthKeeper program, and a grant to support native plant acquisitions needed. After six workdays so far, the St. Stephen's team made tremendous progress in ridding their plot, now called Sanctuary Woods, of English ivy, privets, porcelainberry, rose-of-Sharon, Higan cherry, Amur honeysuckle, multiflora rose, Japanese honeysuckle, Japanese holly, and oriental bittersweet. Newly sprouted native plants are already visible in places where the invasive species were removed.

In all cases, I conducted on-site walks and consultations, pointing out the natives and invasives. We discussed strategy, such as why removing a large, seed-bearing invasive on the edge has greater immediate importance than hitting smaller growths centered in the site: stopping the spread is the first priority. We ranked the worst invasives as high priority to be removed ASAP and the most efficient eradication means. We discussed which targets are appropriate for children's participation (safely remove with hand tools) and which ones should be best for adults or professional maintenance crews only (those involving power tools and herbicides). Strategy also meant remaining committed over years. Completed sites need routine monitoring for the same targets reemerging from residual seed banks, root fragments, and reintroductions or new invasive species, such as mile-a-minute, exploiting recent clearings. We also surveyed around the properties beyond the sites, seeing which nearby invasive plants could easily spread back. In some cases, we saw what grew in neighboring properties so we are aware of species that can impact site recovery. Many people, including fellow IMA site leaders, are eager to start replanting plots with natives, but folks should go slow. The restoration plants can hide an invasive species' reemergence and confound the weed's removal. For GMU and Robinson, we discussed how their IMA-like programs directly help IMA at Royal Lake because both campuses are upstream, so their seeds carried by waterways can deposit onto parkland. Logistics were the site leaders' responsibility: gaining permission to work the land, funding for tools and supplies, recruiting volunteers, and debris disposal. Equally important, having first aid training and insurance in case of accidents.

From time to time, I am asked to see a site's progress and offer suggestions. These sites are coming along beautifully! Besides the good done for habitat restoration and preventing weeds from spreading further, such programs give people valuable land stewardship experience that can be applied at home and other areas. Folks can then share those seeds of knowledge!

These invitational consultations are done by me as a private citizen and biologist and not part of a FCPA extension service. If you belong to or work for an institution, such as an HOA, school, or religious center,

and would like to seriously formulate a committed plan to restore a native landscape, I am happy to provide free guidance! Contact me at greg@grsykes.com.

Figure 2. Before the St. Stephen's workdays, English ivy smothered the area close to the Little Library (A). Volunteers cut ivy windows on tree trunks and uprooted the groundcover ivy (B) resulting in a restored site (C) that will receive continued monitoring for any other emerging weeds. Photos by Lauri Snider.

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