Internal CNA3C Policies and Guidelines
June 2021

General use activities should be promoted in Campus Natural Areas on the main developed portion of campus (e.g., Baker, Sanford, Red Cedar) that have established trail systems. Public access to other natural areas is generally allowed, unless temporarily limited because of sensitive research or safety issues.

Access to some Campus Natural Areas surrounded by campus research farms is problematic for instructional and research use. We need to define CNA boundaries, then identify and designate access points. Boundaries and access points should be identified on maps on the CAN website. One or more lanes (i.e., mowed 2-tracks) along the perimeter of CNAs should be provided to facilitate access where needed.

Improvements to enhance the experience of the public within CNAs, such as improved/ maintained paths, improved access or interpretative materials/signage, should be considered by the CNA3C to the extent that it is in balance with other goals and needs.

Any management activity, including invasive species removal, requires approval of the CNA3C or a designee, though some activities can be approved on an ongoing basis, such as removal of felled trees from trails.

In CNAs with sensitive species, relatively high quality habitats, and/or frequent public use, management or related activities should be limited to invasive species removal, hazard tree removal or other efforts using established best practices. Emergency situations may require exceptions and can be considered by the CNA3C.

In other CNAs, implementation and evaluation of alternative management practices or invasive species removal techniques can be allowed and are even encouraged.

Special attention should be given to minimize physical disturbance of high quality aquatic habitats that tramples biota and disturbs sediments.

Matching instructional and research use to appropriate Natural Areas

Each permit application will be considered individually to determine if the proposed activity is suitable for the specific CNA(s) listed on the application. Decisions will be based on the attributes of the CNA including the presence of unique or protected features or biota, public use of the CNA, and potential impacts of the proposed activity. We anticipate relatively few activities would be appropriate for high quality, high use CNAs such as Baker Woodlot. In the event a proposed activity is deemed unsuitable for a specific CNA, the CNA3C members or their designee can suggest alternative CNAs that might be appropriate for the activity.

Natural Area Quality

Quality of natural communities is typically referred to as “ecological integrity”. Ecological integrity measures the composition, structure, and natural processes of an ecosystem, as compared to its natural or historical range of variation. This approach acts as a yardstick for evaluating impacts caused by natural or man-made agents of change, as well as providing feedback on the effectiveness of management strategies. Integrity can be very high. very low, or somewhere in between.

The NatureServe Network and the associated Natural Heritage Programs and Data Centers have developed a set of criteria for evaluating the ecological integrity or health of a patch of any given natural community type. The three main categories are 1) size, 2) current condition, and 3) landscape context. In Michigan, there are 76 natural communities that are recognized by the Michigan Natural Features Inventory (MNFI). Although each natural community can be evaluated based on its own unique attributes, there are actually many commonalities amongst similar types, such as upland deciduous forests, open wetlands, and grasslands.

Size: Stability and resilience of a terrestrial natural community tend to increase with the size of the patch. For a natural community occurrence to persist over long-time frames, it must be large enough to sustain, absorb, and buffer both natural and human disturbances.

Current Condition: Current condition refers to the viability of the occurrence. For a natural community or ecosystem, condition refers to a variety of things that characterize health. This can include native species richness, structure, natural processes, historic and present threats, and presence and abundance of non-native species. Condition is affected by: 1) anthropogenic impacts (habitat fragmentation, altered hydrology, pollution) and 2) biological legacies.

Landscape Context: Landscape context for terrestrial ecosystems refers to the size of the surrounding natural vegetation patch or block, proximity and extent of incompatible land uses, and the potential for ecological processes to occur at natural rates and scales. Surrounding landscape functionality (context) is an issue for all communities, but particularly for patch types that depend on easily disrupted processes occurring at scales larger than those of the individual community. Examples of key threats to consider in the surrounding landscape include: fire suppression, diversion of groundwater, drainage ditches, coastal revetments, impervious surfaces, and agricultural runoff.

Related Links

MDNR Natural Areas: https://www.michigan.gov/dnr/0,4570,7-350-79133_79200---,00.html

Michigan Nature Association: https://www.michigannature.org/index.cfm?fuseaction=locationgallery&action=listing&listing=146

Michigan Natural Features Inventory: https://mnfi.anr.msu.edu/

Natural Areas Association: https://naturalareas.org/

NatureServe: https://www.natureserve.org/