**Cogangrass (*Imperata cylindrica*)**

**Brief history of occurrence in NATL**

The 1995 [Cooperative Florula Project](http://natl.ifas.ufl.edu/1995lists.htm) did not report that Cogongrass was in NATL. In [2000](http://natl.ifas.ufl.edu/NATLplants.html), in his [Plant Inventory](http://natl.ifas.ufl.edu/WardLists.htm), Dan Ward noted its occurrence in gridblock G5 and stated that it was “a dangerously INVASIVE species; should be removed!” In [2003](http://natl.ifas.ufl.edu/WardLists.htm), he added that it occurred in the old field habitat and was “rare.” For several years Tom Walker frequently sprayed small patches of it with glyphosate and eventually learned that such treatment killed the shoots but that the rhizomes often survived. By late 2004 a patch in Old Field Plot A had rapidly grown to 0.5 acres and had produced the first seed heads noted on Cogongrass in NATL. In early April 2005, under a state-funded contract arranged by Erick Smith (UF’s UrbanForester at that time), Chris Bensen sprayed the largest patches with imazapyr, a herbicide not used on cogongrass in NATL again until 2009, when hand-treatment of individual plants or very small patches began.

In 2011, when Ethan Carter took over the task of finding and treating patches of Cogongrass, he gradually eliminated the previously known patches and at a substantially higher rate than he was able to find new ones (see map). He may (or may not) succeed in eradicating the species from NATL!

Cogongrass has never been reported from NATL-east. It is classified as a Category I invasive in [FLEPPC’s 2011 List](http://www.fleppc.org/list/11list.html).

**Ethan’s synopsis of sites mapped and treatments applied**

A site discovered and treated before May 2011 from which the species was eradicated is referred to as a legacy site and indicated on the species’ map by a triangle. If the species was not eradicated from the site, the site was treated after May 2011 and is indicated on the map by a triangle inside a circle. A site indicated on the map with a filled circle is one that was discovered, and treatments started, after May 2011.   
Basal barked means that triclopyr (Garlon) in oil was applied to the trunk or the cut stump.

\*After May 2011 only 1% Imazapyr was sprayed

**Inactive Sites (legacy)**

1. NE corner of plot A- Sprayed with Glypro
2. \* At south end of mulched trail from Powell Hall- sprayed Glypro on 3 occasions
3. In Plot A near gridline F and Old-Field Trail connects- sprayed Glypro (3 connected patches)
4. \*June 2006-East of NV 1-sprayed Glypro (north of Main Trail nr. Pavilion)
5. \* June 2006-along fence behind Haz Mat building-sprayed Glypro ( East side of East Trail)
6. \*June 2006- West of CG15 with Baccharus understory-sprayed Glypro
7. August 2006- East side of Surge Area Dr. (Glypro)
8. November 2006- added South central area of Plot D to spray areas (Glypro)
9. \*November 2006-West on South Trial close to 34th St. Trail (Ex. Plot-sprayed Imazapyr)
10. \*June 2007- Entrance of NATL-East-sprayed Glypro
11. \*December 2008-Across firelane from CG9 in nPAP- sprayed Glyphosate
12. July 2009-CG2 at SE corner of corral fence on either side of junction of East Trail and North Trail (sprayed Glyphosate.)
13. September 2009-CG6 at NW end of Plot A and NE end of nPAP, sprayed 1% Imazapyr.
14. September 2009-CG8 Plot A along firelane between CG7 and West end of Old-Field Trail.
15. December 2009-CG12-Plot C South of Old-Field Trail near grid point F4.
16. June 2009-CG14- Along South side of Main Trail about at grid line F sprayed plants with Glyphosate, and followed up with Imazapyr in September/December
17. September 2009-CG15 sprayed plants with 1% Imazapyr (this area is now part of CG45)
18. June 2009-CG17-North of Surge Area mini-warehouses and SE of CG1 (Exp. Plot and it includes CG1.) Sprayed 1% Habitat in one area and 2% Habitat in another. Last living plants were sprayed in December 2009 with 1% Imazapyr.
19. June 2009- CG23-Sprayed Glyphosate on 5 live plants at the end of the Upland Pine Nature Trail/West side of Hammock Trail. In September/October 2009 plants were sprayed with 1 % Imazapyr.
20. CG30-July 2009-One plant found on the East side of Surge Area Drive was sprayed with Glyphosate. In September 2009 3 plants were sprayed with 1% Imazapyr.
21. CG32-June 2009-North of Plot Glyphosate.
22. CG33-June 2009-SE of Plot A Glyphosate was sprayed on 4 plants. In September 2009 plants were sprayed with 1% Imazapyr, as well as in December 2009.
23. CG37-In the center of Plot A, including grid point F# along trail 11 plants were sprayed with Glyphosate. In September/October 2009 the plants were sprayed with 1% Imazapyr. In December 2009 7 plants were sprayed, and 3 more 3 in June 2010.
24. CG39-December 2008-NE of Plot B, North of trail 40+ plants were sprayed with Glyphosate.
25. CG40-September 2009-along firebreak from C11-C12 356 plants were sprayed with 1% Imazapyr. In October 2009 111 plants were sprayed with 1% Imazapyr. In December 52 plants were sprayed with 1% Imazapyr.
26. CG41-june 2009-along West side of UP Trail 50+ plants were sprayed with Glyphosate. September 2009 7 plants were pulled by hand with rhizomes. In June 2010 10 more plants were pulled with rhizomes and one more in July 2010.

**Old Active Sites**

1. CG1-September 2009-retention pond for Surge Area mini-warehouses with 1% Imazapyr-last sprayed July 2011 no live plants currently there.
2. CG4-September 2009 –North edge of Plot A (experimental Plot) sprayed with 1% Imazapyr. Last sprayed in August 2011, no live plants currently there.
3. CG7-In Plot A along fire lane near its North end, no plants were found between June 09 and July 2011, however in August 2011 several plants were found and sprayed. No live plants currently there.
4. CG10-East end of Plot A near the center last sprayed in October 2011. No live plants were found before the plot was restarted in 2012.
5. CG11-Plot A along the Old-Field Trail- July 2011 sprayed patch near stake C, stakes A & B had no plants. No live plants currently there.
6. CG13- SE corner of nPAP North along firelane to about halfway to gridline 4 (Ex. Plot) sprayed 1% Habitat in on area and .25% Habitat in another area in June 2009. In September and December 2009 the new plants were sprayed with 1% Imazapyr. In June 2010 the area was again sprayed with 1% Imazapyr, as well as in July 2011. Currently there are no live plants found there.

-----**Across from CG13 still in the nPAP a small patch was found and sprayed in January 2012 and follow up treatment in March 2012. Most plants are currently a sickly yellow, some are brown and dead.**

1. CG16-June 2009 sprayed Glyphosate on plants on the South side of Main Trail just West of gridline G (divides Plots C and D.) In October/December 2009 plants were sprayed with 1% Imazapyr. July 2011-5 plants were sprayed (no live plants are currently there.)
2. CG18-September/October 2009-on the 34th street berm (area was added to spray areas in July 2006) a patch was sprayed with 1% Imazapyr. Sprayed regrowth/new plants in June 2010 with 1% Imazapyr. **No plants were found again until March 2012 when a small patch (maybe 10 plants) was sprayed. Most plants are a sickly yellow-will need to follow up on patch.**
3. CG19-December 2009-along the East border of NATL West from to new corral fence to min-warehouse entrance 3 plants were sprayed with 1% Imazapyr. In June 2010 5 plants were sprayed with 1% Imazapyr. In October 2010 one plant was sprayed, it is currently dead and there are no live plants there.
4. CG21-Decemeber 2009 sprayed patch with 1% Imazapyr at South end. None were reported until October 2011 when a small patch was found along a student made trail across from the Peach Tree. Currently there are no live plants there.
5. CG25-June/July 2009-Plants growing around the perimeter of the mini-warehouse area were sprayed with Glyphosate. In September 2009 they were followed up with 1% Imazapyr. No new plants were reported until July 2011 and they were immediately sprayed. In October 20111 one surviving plant was sprayed and no new plants have been found since then.
6. CG26-June 2009 plants found in the SE of Plot E were sprayed with Glyphosate, and when follow up was done in September 2009 they were sprayed with Imazapyr. 12 plants were sprayed with Imazapyr in December 2009. No new plants were reported until July 2011 when a large patch was found and sprayed. There are currently no live plants found there.
7. CG27-June 2009- plants found on the West side of Surge Area Drive near the culvert opening and in the woods were sprayed with glyphosate. In September/October 2009 they were sprayed with 1% Imazapyr. In December 2009 10 plants were sprayed with 1 % Imazapyr. No new plants were found until July 2011 when almost the entire ditch was covered, and in October 2011 everything was dead.
8. CG29-September 2009-one plant was sprayed with 1% Imazapyr. No new plants were found until October 2011 when a small patch was sprayed inside the fence. No live plants are currently found there.

**New Active Sites**

1. CG43-July 2011-At the North end of Plot D between G4 and nature trail a large patch was found and sprayed. There are currently no live plants there.
2. CG44-July 2011-Directly across from the pavilion a small patch was found and sprayed. **In March 2012 the original patch was dead, but 8 new plants were found and sprayed growing about 15ft from original area. Most are a sickly yellow and dying, but still alive at present.**
3. CG45-August/September 2011-4 large patches were found and sprayed growing in Plot C parallel to both the Main Trail and the nature trail. There are currently no live plants there.
4. CG46- small patch growing near J8 found and sprayed.
5. CG46 (Extension of CG27)-December 2011- Large patch was found and is visible from road (about 15 ft from fence in woods) and another large patch even farther in the woods behind it. In January 2012 finished spraying all plants in both patches. In March 2012 all plants that were alive were sprayed for follow up treatment. Most of plants are a sickly yellow and dying, but still alive at present.

**Current herbicidal control used in NATL**

Spray 1% Imazapyr on all foliage and soil 6 inches in diameter from stem. Details of formulation are at [Treatment Mixes](http://natl.ifas.ufl.edu/NATLmixes.htm).