

Local Systems for Weed Mapping

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Local Mapping

- Park and Refuge Units
- County Ag Departments
- Weed Management Areas
- Watershed Groups, RCDs, CRMPS
- Weed Focused projects – Arundo, sesbania
- CDFA – A rated weeds +/-

Local Mapping and Database Systems

- ESRI based
 - Stand alone Shape files
 - Shapefiles linked with database
 - Geodatabase
- WIMS
- Flatfile ?
- Other ?

System complexity

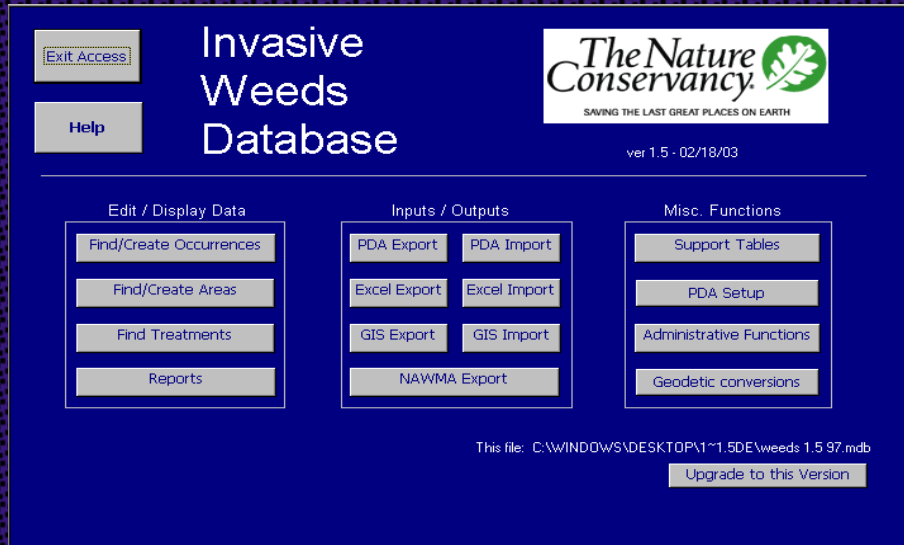
- Remote sensing snapshot
- One time spatial inventory with abundance
- Updateable spatial inventory
- Management activity information system
- Detailed monitoring of treatment success and response of other species in the habitat, water sampling etc.

North American Weed Management Association

Weed Mapping Standards – Core Required Elements

- Observation Date
- Genus and Species
- Infested area and unit of measure
- Canopy cover
- Ownership category
- Owner of the data
- Country, State and County
- Hydrological Unit Code (for aquatics)
- Location (MTRS, Lat/Long, UTM)

TNC Invasive Weeds Database: A New Tool for Invasive Species Management



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WIMS Opportunity

- Shared development
- Standardized system.
- Turnkey; Easy to use; Off the Shelf
- Can do statewide trainings
- Helpdesk , manuals; web help
- Helps develop aggregated statewide datasets

New system and associated tools:

TNC Invasive Weeds Database

- Personal digital assistant (PDA)
- GPS attachment
- Data can be easily imported & exported
 - a. Excel
 - b. ArcView, ArcInfo, ArcPad, etc.
 - c. NAWMA standards

TNC Invasive Species Database

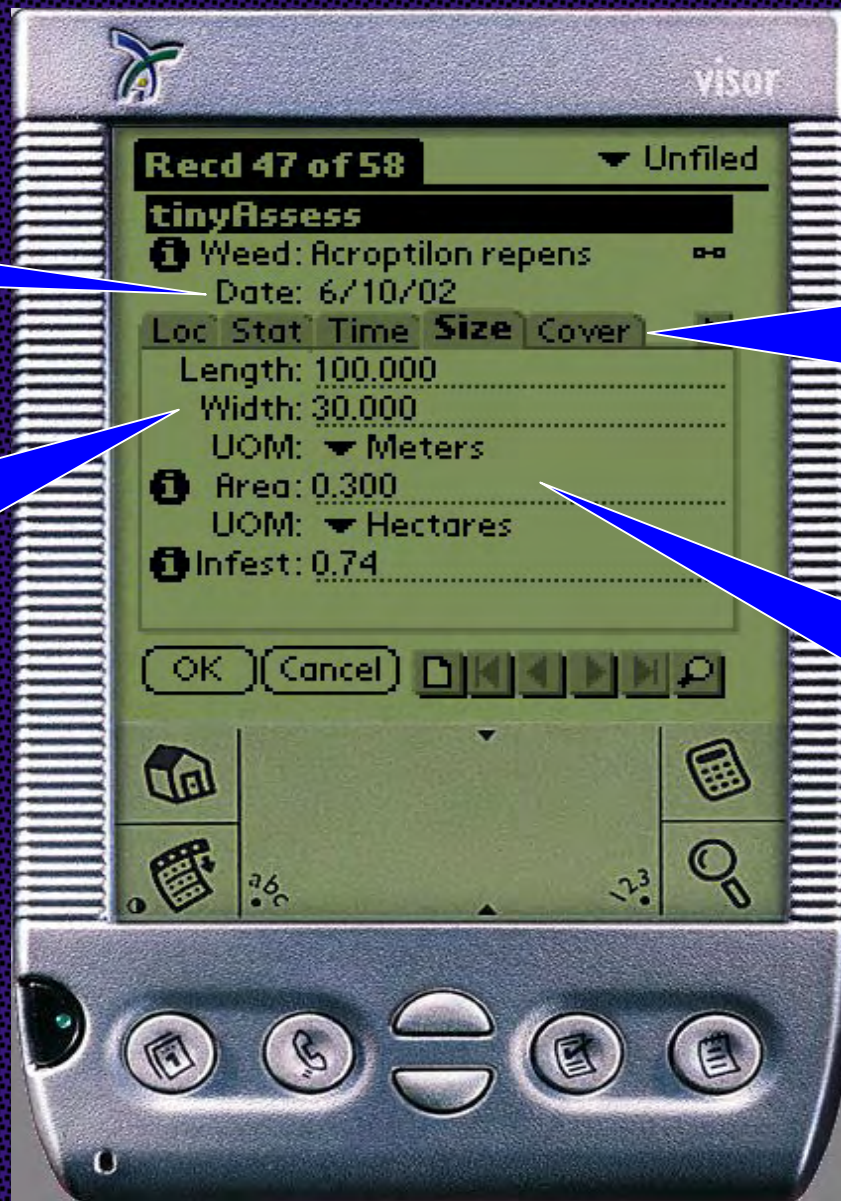
What it does:

- Tracks weed *occurrences*
- Tracks *assessments* (current status and monitoring data)
- Tracks *treatments* (any management actions taken)

Potential audience:

- All natural resource managers

Assessment Record



Assessment
Date

Length and width
measurements for
the occurrence

Separate tabs for overall
size, cover, density,
frequency or biomass
measurements

Size of the occurrence
is automatically
calculated from
measurements

Assessments/Monitoring

Weed Assessment

Area(s): **Boardman Conservation Area / Cowboy pasture**
 Location: **Cowboy- NE**

Weed: **Centaurea solstitialis**

Date:
 Phenology:

Current Crew:

Notes:

Length:

Width:

Units:

Area:

Units:

Infested Acres:

Cover %:	<input type="text" value="0.5 %"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>
Cover Class:	<input 1%")"="" type="text" value("<=""/>			
Density:	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>
Unit Area:	<input type="text"/>			
Count Unit:	<input type="text"/>	<input type="text" value="?"/>		
Biomass Weight:	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>
Units:	<input type="text"/>			
Area Units:	<input type="text"/>			

	Plot Size	Frequencies	\pm	precision	n
1:	<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>
2:	<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>
3:	<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text" value="precision"/>	<input type="text" value="n"/>

Treatments

Weed Treatment

Date:
 unaudited since Import

Treatment Type:

Crew:

Notes:

Affected Area(s)

Area	Acres Treated
▶ Boardman Conservation Area	0
Cowboy pasture	0

Total Acres Treated:
 TimeStart:
 TimeEnd:
 Hours:
 # Staff:
 # Volunteers:
 Person/Hours:

key either Times (HH:MM) or # of hours (N.N)

Weeds affected by THIS Treatment

Weed	Location	Phenology	% Treated
▶ Centaurea solstitialis	Cowboy- NE	Flowering	80 %
✎ Centaurea diffusa	Schoolhouse - S Cullen cor	Flowering	20 %

(Please supply Phenology and % Treated for each Weed)

WindSpeed:
 WindDirection:
 Temperature (F):
 Time of Temp:
 Qty of Spray (gals):
 Notes:

Applicator1:
 Applicator2:

Herbicide

Herbicide	Method Of Application	Undiluted Qty	UOM	% Sol
Herbicide Supplier	Adjuvant			
▶ TRANSLINE	backpack/spot sprayer	0		3 %
Wilbur Ellis	R-11			0.1 %
* <input type="text"/>	<input type="text"/>	0		0 %
<input type="text"/>	<input type="text"/>	0		0 %

Reports that can be automatically produced:

Infested Acres, by Weed

State/County	Weed	# Occurrences	Total Acres	Avg Acres	Min Acres	Max Acres
Cardaria draba						
ID	Canyon	5	25.00	5.00	0.00	12.00
		Totals:	5	25.00		
OR	Crook	1	0.01	0.01	0.01	0.01
		Totals:	1	0.01		
Centaurei maculosa						
ID	Fremont	1	25.00	25.00	25.00	25.00
ID	Owyhee	1	4447.80	4447.80	4447.80	4447.80
		Totals:	2	4472.80		
Cirsium arvense						
ID	Fremont	2	0.11	0.06	0.01	0.10
		Totals:	2	0.11		
Convolvulus arvensis						
ID	Fremont	1	7.00	7.00	7.00	7.00
		Totals:	1	7.00		
Dipsacus sylvestris						
OR	Grant	1	0.62	0.62	0.62	0.62