



IT Use with Snails

Giant African Land Snails (GALS)

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Florida Department of Agriculture and Consumer Services



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On 9/11/2011, a confirmed GALS snail was found in Miami-Dade county. We quickly mobilized our Emergency Response teams and began field surveying in the immediate area.

Needed a database to manage our data to win the fight.



Now have a central GALS database, which allows all data to be stored and reported.

Daily maps are updated based on the status of the properties in the GALS database.

GALS database is an Oracle database, with a web front-end for User screens.

We have all of Miami-Dade county properties (900,000) and GIS shapes loaded for use.

As new positive properties are confirmed by the labs, we can quickly generated new maps and update survey sheets (pre-pops)



GALS Property List



GALS
Gulfstream Agricultural Land System
1.08.2019

HOME | ABOUT | CONTACT | SERVICES | HISTORY | INFORMATION | LOGIN

WMT INFO

10 Properties Search Results for user: GALS (Gulfstream) (Page: 1)

WMT STATUS: Shows (10) (Unpaginated)

Item Name	Parcel No. #	Acres	Block	Lot	Tract	Location of Tract	Location of Parcel	Area
WATERBURY TRACT	330	64.2733	99-11-0000001			99-11-0000001	99-11-0000001	64.2733
WATERBURY TRACT	331	64.2734	99-11-0000001			99-11-0000001	99-11-0000001	64.2734
WATERBURY TRACT	332	64.2735	99-11-0000001			99-11-0000001	99-11-0000001	64.2735
WATERBURY TRACT	333	64.2736	99-11-0000001			99-11-0000001	99-11-0000001	64.2736
WATERBURY TRACT	334	64.2737	99-11-0000001			99-11-0000001	99-11-0000001	64.2737
WATERBURY TRACT	335	64.2738	99-11-0000001			99-11-0000001	99-11-0000001	64.2738
WATERBURY TRACT	336	64.2739	99-11-0000001			99-11-0000001	99-11-0000001	64.2739
WATERBURY TRACT	337	64.2740	99-11-0000001			99-11-0000001	99-11-0000001	64.2740
WATERBURY TRACT	338	64.2741	99-11-0000001			99-11-0000001	99-11-0000001	64.2741
WATERBURY TRACT	339	64.2742	99-11-0000001			99-11-0000001	99-11-0000001	64.2742
WATERBURY TRACT	340	64.2743	99-11-0000001			99-11-0000001	99-11-0000001	64.2743
WATERBURY TRACT	341	64.2744	99-11-0000001			99-11-0000001	99-11-0000001	64.2744
WATERBURY TRACT	342	64.2745	99-11-0000001			99-11-0000001	99-11-0000001	64.2745
WATERBURY TRACT	343	64.2746	99-11-0000001			99-11-0000001	99-11-0000001	64.2746
WATERBURY TRACT	344	64.2747	99-11-0000001			99-11-0000001	99-11-0000001	64.2747
WATERBURY TRACT	345	64.2748	99-11-0000001			99-11-0000001	99-11-0000001	64.2748
WATERBURY TRACT	346	64.2749	99-11-0000001			99-11-0000001	99-11-0000001	64.2749
WATERBURY TRACT	347	64.2750	99-11-0000001			99-11-0000001	99-11-0000001	64.2750
WATERBURY TRACT	348	64.2751	99-11-0000001			99-11-0000001	99-11-0000001	64.2751
WATERBURY TRACT	349	64.2752	99-11-0000001			99-11-0000001	99-11-0000001	64.2752
WATERBURY TRACT	350	64.2753	99-11-0000001			99-11-0000001	99-11-0000001	64.2753
WATERBURY TRACT	351	64.2754	99-11-0000001			99-11-0000001	99-11-0000001	64.2754
WATERBURY TRACT	352	64.2755	99-11-0000001			99-11-0000001	99-11-0000001	64.2755
WATERBURY TRACT	353	64.2756	99-11-0000001			99-11-0000001	99-11-0000001	64.2756
WATERBURY TRACT	354	64.2757	99-11-0000001			99-11-0000001	99-11-0000001	64.2757
WATERBURY TRACT	355	64.2758	99-11-0000001			99-11-0000001	99-11-0000001	64.2758
WATERBURY TRACT	356	64.2759	99-11-0000001			99-11-0000001	99-11-0000001	64.2759
WATERBURY TRACT	357	64.2760	99-11-0000001			99-11-0000001	99-11-0000001	64.2760
WATERBURY TRACT	358	64.2761	99-11-0000001			99-11-0000001	99-11-0000001	64.2761
WATERBURY TRACT	359	64.2762	99-11-0000001			99-11-0000001	99-11-0000001	64.2762
WATERBURY TRACT	360	64.2763	99-11-0000001			99-11-0000001	99-11-0000001	64.2763

Add Samples | Molecular System | System provided by FQAS

ADDELETE SNAIL COUNT

Snail Count Add Location: 181 NW 48 ST Cas-2, G-625

Science Screen

Assign Snail Count for Year: 181 NW 48 ST for the date: 06/04/2014

WAT No.: 18124 VWDNK: 06/04/2014

ADULT

LIVE: Dead With Tissue:

JEWELLS

LIVE: Dead: Dead With Tissue:

BEHINDS

LIVE: Dead:

Total Snails: 0

Snail Count for: 181 NW 48 ST Delete

WAT No.	WAT No.	AC	AD	ADWT	J	JT	JWT	ML	MD	11	TD	TOT
003AC24	18124											



GALS DAILY TALLY SHEET

6/4/2014

SCIENTIFIC OFFICER :
Dr. Mary Yong

Daily Report generated from GALS database

COGR-GRID	ADDRESS	CURRENT COLOR ALERT LEVEL	ADULTS		JUVENILE		HEBONATE		TOTALS		
			> 40 MM		21-39 MM		0-30 MM		TOTAL	TOTAL	TOTAL
			ADULT LIVE	ADULT DEAD	JUVENILE LIVE	JUVENILE DEAD	HEBONATE LIVE	HEBONATE DEAD	LIVE	DEAD	TOTAL
1(26)	3338 SW 25 TER	YELLOW	0	1	0	1	0	0	0	2	2
2(21)	120 SW 49 ST	RED	0	0	0	8	0	0	0	8	8
2(21)	148 SW 48 ST	RED	0	0	0	1	0	0	0	1	1
2(21)	157 SW 48 ST	RED	0	0	0	1	0	0	0	1	1
2(21)	170 SW 49 ST	RED	0	1	0	0	0	0	0	1	1
2(21)	180 SW 49 ST	RED	0	1	0	0	0	0	0	1	1
2(22)	242 SW 45 ST	RED	0	0	0	1	0	0	0	1	1
2(22)	166 SW 48 ST	RED	0	0	0	1	0	0	0	1	1
2(22)	174 SW 48 ST	RED	0	1	0	2	0	0	0	3	3
2(22)	4796 SW 2 AVE	RED	0	0	0	1	0	0	0	1	1
2(23)	108 SW 47 TER	RED	1	2	0	0	0	0	0	1	3
2(23)	254 SW 47 TER	RED	0	0	0	1	0	0	0	1	1
2(23)	144 SW 47 TER	RED	0	1	0	3	0	0	0	4	4
12(27)	13010 SW 256 ST	RED	0	1	0	0	0	0	0	1	1
12(22)	11840 SW 46 ST	RED	0	0	0	2	0	0	0	2	2
TOTAL:			1	6	0	19	0	0	1	27	29

Printed JUN-05-14
06:14:37:39



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Mobile Evaluation – Application Approach

DPI – FL Department of Agriculture & Consumer Services
Division of Plant Industry (DPI)

Mission – to protect Florida’s native and commercially grown plants and the state’s apiary industry from harmful pests and diseases

Workforce – 350+ field inspectors
Nursery, Stock Dealers, Fruit Fly Detection, Detector Dog, Protocol, Citrus Health, Giant African Land Snail, Apiary, Cooperative Agricultural Pest Survey, Methods



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History



PDA history – 2003 implemented 350+ PDA's for Citrus Canker residential inspections

DPI & USDA folks collectively did multi-million surveys over 5 years on PDA's

Training done statewide in 2.5 hr training sessions, hands-on and with work samples

200 records -> transferred in 10 seconds

4,000 transactions/day uploaded to Oracle PICS database

Looking to use same approach where off-line needed, export from back-end database, export file, use on mobile devices



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Mobile Evaluation within DPI

- Smart Phones – display screen too small, poor visibility in sunlight
- iPads – rigid development environment, doesn't work well in sunlight, pricey
- Netbooks – heavy, needs work surface for keyboarding, old technology
- Tablets – 10", 7" – preferred for easy interaction



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Current Status

- Purchased 30 devices for development
- Verizon LTE access to GALS database
- Able to display maps with no issues





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Back TEAM ASSIGNMENT Home

EXISTING BUS TEAMS :

X Delete

Team Name	Employee Name	check all updates
BRAVO-1	ACOSTA, ALEXIS	⌵
BRAVO-1	MAREDOY, NAVEEN	⌵
BRAVO-1	ACOSTA, DENISE	⌵



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NEW TEAM ACCESS

Core-Grid Access for BRAVO-1 Choose (2/64b)

Core-Grid Access for BRAVO-2 Choose (2/64b)

Core-Grid Access for BRAVO-3 Choose (2/64b)

Save

EXISTING CORE-GRID ACCESS TO TEAMS: Delete

Team Name	Core-Grid	Action
BRAVO-1	2/28	edit
BRAVO-1	2/28	edit
BRAVO-1	2/28	edit

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YOU ARE NOW ACCESSING : 3-28 | VISIT DATE 06 JUN 14

ID	DWI NAME	HWO	ST NAME	PIR	WAVES	STATUS
	JOHN H JOHNSON JR & W OWENDOULT	643	NW 4 AVE		(M4-T)	
	DYN SOLOMON	643	NW 4 AVE		(M4-T)	
	CONCRETE INC BUILDERS INC	648	NW 5 AVE		(M4-T)	
	BANK OF NEW YORK TRU	641	NW 5 AVE	PIR	(M4-T)	
	LOUIS R PEREZ, OUIS & W MARIE	643	NW 5 AVE			TI-RO
	CARLOS ALBERTO RODRIGUEZ	641	NW 5 AVE	P -	(M4-T)	YELLOW
	NACHOVA MRS FEB	644	NW 5 AVE		(M4-T)	
	JUNTA LUGER	648	NW 5 AVE		(M4-T)	
	JUDITH WARTCOVICH	647	NW 5 AVE		(M4-T)	
	SANTAGO LOZANO	426	NW 34 ST		(M4-T)	
	SANTAGO LOZANO & W BLANCA	426	NW 34 ST		(M4-T)	
	FRANKLIN PEREZ	446	NW 34 ST		(T), (M4-T)	
	HENRI L & EVA R BACA (TRU)	666	NW 34 ST		(M4-T)	
	GEORGE'S LIGHT &	661	NW 34 ST		(M4-T)	

M4-T-METALDEHYDE, S-SLUGGO, P-POSITIVE, R-REFUSED, S-SURVEYED, FYO-FRONT YARD ONLY; TREATMENT TYPES: S-SLUGGO, N-NBAH, B-BUG GETA, F-BLUG FEET, D-DURHAM, DL-DEADLINE; SURVEY AND TREATMENT CYCLE: RED-14 DAYS, GRAY-14 DAYS, YELLOW-30 DAYS; SURVEY ONLY CYCLE: GREEN-08 DAYS, BLUE-180 DAYS, ERADICATED, NO SURVEY PURPLE



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YOU ARE NOW ACCESSING : 3:28 | VISIT DATE:06-JUN-14

ID	OWN NAME	APNO	ST NAME	P/R	WAVER	STATUS
	JOHN H JOHNSON JR & W GRENOLLYN	5422	NW 4 AVE		(M)-1	
	DEK SOLORSON	5430	NW 4 AVE		(M)-1	
	CONSTRUCTIVE BUILDERS INC	5440	NW 4 AVE		(M)-1	
	BANK OF NEW YORK TRS	5421	NW 3 AVE	P,R	(M)-1	
	LOUIS M PIERRE-LOUIS & W MARIE	5422	NW 3 AVE			TR-2
	CARLOS ALBERTO RODRIGUEZ	5431	NW 3 AVE	P	(M)-1	YELLOW
	WACHOVA MTG FIB				(M)-1	
	ANITA LUCSEN				(M)-1	
	JUDITH WARTCOVICH				(M)-1	
	SANTIAGO LOZANO				(M)-1	
	SANTIAGO LOZANO & W BLANCA	435	NW 54 ST		(M)-1	
	FRANKLIN PERRE	445	NW 54 ST		(T),(M)-1	
	HENRY L & EVA B BACKI (TRS)	435	NW 54 ST		(M)-1	
	GEORGE'S LIBERT &	537	NW 54 ST		(M)-1	



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VISIT HISTORY				
VISIT DATE	TEAM NAME	REASON	TREATMENTS	SNAILS
01/18/2013	NOT AVAILABLE	SURVEY,CONTROL	(SG)-0.200000003	
03/21/2013	NOT AVAILABLE	SURVEY,CONTROL	(SG)-3	
04/27/2012	NOT AVAILABLE	SURVEY	-	
06/19/2012	NOT AVAILABLE	SURVEY	-	
07/12/2012	NOT AVAILABLE	SURVEY	-	
08/11/2012	NOT AVAILABLE	SURVEY	-	
10/10/2012	NOT AVAILABLE	SURVEY	-	
10/16/2011	NOT AVAILABLE	SURVEY	-	
12/20/2012	NOT AVAILABLE	SURVEY,CONTROL	-	



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Last Date of Treatment
 02/26/2013(S)
 03/21/2013(N)
 Last Date of Survey
 Special Instructions

More detail about a Property available to the crews.

Last Date of Treatment
 Last Date of Survey
 03/21/2013
 Special Instructions

Last Date of Treatment
 Last Date of Survey
 Special Instructions
 SI-PER PROGRAM
 DIRECTOR. ABANDONED.--
 PER PROGRAM DIRECTOR.
 ABANDONED.



Back
VISIT ADD
Save

VISIT REASONS :

VISIT OUTCOMES

SMALLS FOUND ?

FID ? (PREVIOUS FID # ?)

SPECIAL NEEDS

BAD DOG
CALL BEFORE
CREOLE TRANSLATOR
DEBRIS/KOWING NEEDED
EVENING ONLY
HOSTILE SITUATION
LOCKED GATE
MORNING ONLY

PID REQUIRED
SATURDAY ONLY
SPANISH TRANSLATOR
SUNDAY ONLY
TREAT ANYTIME
VACANT/ABANDONED PROPERTY

TREATMENTS

DEBRIS DONE ?

COMMENTS

ADHOC MEMBERS 0

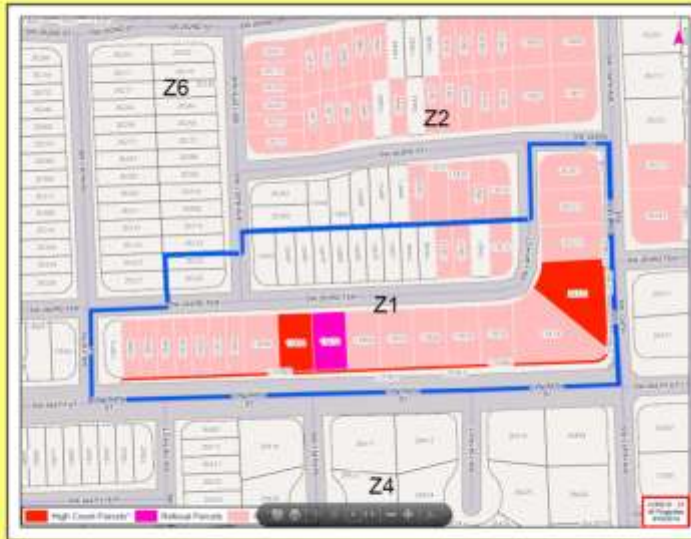
SAVE

RESET



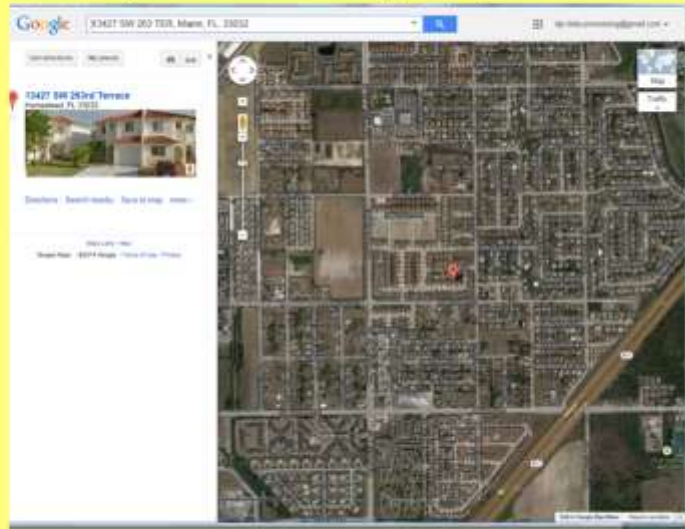

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Z Grid Map



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Map Location – Google map



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Interactive Map Project



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GALS Project

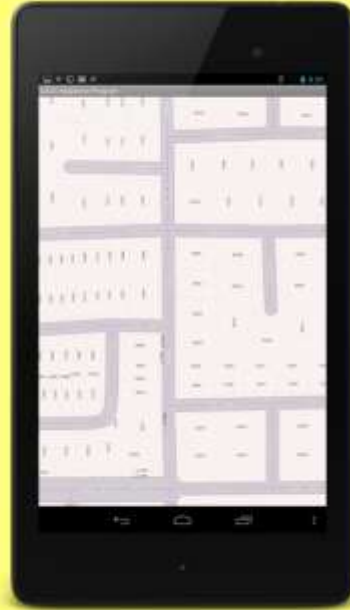
- Can zoom in to get streets visible
- Can 'pinch & zoom' to change display
- Can swipe to move around



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GALS Project

- Can zoom in further to get House numbers visible
- Can 'pinch & zoom' to change display
- Can swipe to move around



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Reports (screen shots)

Sample output of reports – 1 of over 21+ reports available in PDF or XLS formats

DAILY ACTIVITY REPORT 07/21/2014

CORS TRAM NAME	POSITIVE		ACTION TAKEN		DEBRIS			SNAIL COUNT							
	P	MP	SURVEY	CONTROL	BAGS	AL	AD	UL	UD	NL	ND	T L	T D	T L D	
1 CHARLIE	5	0	20	20	0	0	0	0	0	0	0	0	0	0	
2 DELTA	9	0	15	15	2	7	0	1	0	7	0	2	0	10	
3 INDIA	9	0	10	0	18	39	0	0	0	0	0	0	0	0	
5 BRAVO	12	0	22	22	0	0	0	0	0	0	0	0	0	0	
10 ALPHA	8	0	16	16	0	0	0	0	0	0	0	0	0	0	
12 GOLF	3	0	5	5	0	0	0	1	0	0	0	0	0	1	
13 KILO-9	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
11 CHARLIE	3	0	10	9	0	0	0	0	0	0	0	0	0	0	
Total:	54	0	99	87	12	46	0	2	0	7	0	2	0	11	



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Maps — over 1,881+ maps updated daily,
other only upon request

Public Relations Map →

Z-Grid Map



Maps(screen shots) cont'd

Treatment Map →

Color Alert Map



Other items available via Tablets:

- Videos
- Photos/Email/GPS



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Why Nexus 7 LTE devices

- Size – ease of use outdoors
- Price point \$400 (device, case, carry accessories)
- Android – Jelly Bean 4.3+
- Quad processor – Snapdragon S4 Pro, 1.5GHz, 2GB RAM
- 32GB (w/ air card-\$349)
- On-board GPS
- 2 Camera (rear 5MP, front 1.2MP)
- Video – HD display 1080p
- HDMI output port, 2 speakers
- Wireless charging
- Google Earth
- Brighter display for outdoors use
- Bluetooth/Wi-Fi enabled, internal aircard (Verizon or AT&T)
- KingSoft – MS Office (create, edit) – Word, Excel, PowerPoint



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Continued efforts:

- Tablet deployment
- PIO screen
- Interactive Maps
- Regulatory screen – Solid Waste, Illegal Dump Sites, Lawn Maintenance, Nursery/Stock Dealers





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