STATUS ASSESSMENT RESPONSE FORM

Species (Botanical name): Elaeagnus pungens	
(Common name): Thorny olive	_
Where the voucher specimen is held:	_
Assessment/ Reassessment completed by: Deah Lieurance	
Date assessment started: 8/19/2014 Date assessment completed: 8/19/2014	_

INSTRUCTIONS

Either check appropriate response or enter it in the designated space.

Attach additional sheets with evidence as necessary using appropriate section numbers.

SUMMARY OF ASSESSMENT RESU	ULTS
BY STATE If species is NOT invasive in Florida, che	eck one of the following three conclusions:
From Section A	Automatic Exemption
☐ Use Predictive Tool	☐ Prohibited
☐ Not considered a problem species a	t this time
BY ZONE North: Central: South Index	North: Central: South
Score $I = 19 : 20 : \{20\}$	$\mathbf{M} = 15.5$
Category I = M : M : M	P = H : H : H M = H V = H
Conclusions North Invasive & not reco	mmended except for "specified and limited" uses
	commended except for "specified and limited" uses

In case of incomplete assessment:

Where did assessment stop?

Who could provide the answer to this question?

Automatic Exemption								
Is this sp	Is this species listed on any federal or state noxious or prohibited plant lists?							
☐ Yes	Under "BY STATE" on page R-1 check Prohibited							
✓ No	Go to Section I-a below							

Step-by-Step Assessment Responses

I-a	Current I	nvasion in Florida								
1.	 Is there a proposed or new use for a species that would result in higher propagule pressure* in Florida? For example, cultivation of ≥2 contiguous ac of a species for bioenergy (corresponding to DPI biofuel rule), or commercial cultivation of a species present in Florida for a new use, or increase in acreage cultivated from 1-10 ac to 10 times that acreage (10-100 ac), 10-100 ac to 5 times that acreage (50 to 500 ac), or >100 ac to 2.5 times that acreage. 									
	☐ Yes	Use the Predictive Tool								
	✓ No	Go to question I-a 2								
2.	Does this	species occur in any natural areas of Florida?								
	✓ Yes	Attach distribution records and Go to question I-a 3								
	☐ No	Go to Section A								
3.	Does it O	NLY occur in natural areas of Florida because it has persisted from its previous 1?								
	Yes	Attach evidence of previous cultivation for each site and Go to Section A								
	✓ No	Go to Section I-b								
		Section A is on page R-3 and Section I-b is on page R-4								
		☐ Check box if distribution records are attached ☐ Check box if evidence of previous cultivation is attached								

Section	on A									
A1	Does this species hybridize with any Federal or Florida-listed Endangered or Threatened species, Species of Special Concern, or economically important species (e.g., exhibit pollen/genetic invasion)?									
	Yes	Provide information below. Enter a conclusion on page R-17 of No unless limited use approved. Go to Section D for details on how to make a proposal for specified and limited use for the species.								
	☐ No	Go to question A2								
If yes	, then <i>provide n</i>	name of listed or economically important species & information sources:								
A2	Has this spec 20 years if we	ies been introduced to Florida within the last 10 years if herbaceous, or last body?								
	Yes	Use Predictive Tool and so indicate on page R-1								
	□No	Highlight attached distribution records that show presence in Florida before 10 or 20 years ago or attach other evidence and Go to question A3								
A3	Does this spe and climate to	cies have a record of causing problems in other regions with similar habitats o Florida?								
	Yes	Provide evidence below, Use Predictive Tool and so indicate on page R-1								
	□ No	Enter a conclusion of Not considered a problem species at this time and may be recommended by IFAS faculty on page R-1 but reassess if invasion of natural areas is recorded or within 10 years, whichever is earlier.								
If yes	s, then give evia	lence of where and what problems this species has caused:								
		Section D in on page P 10								
		Section D is on page R-19								

I-b	I-b Invasion Status in Three Zones of Florida							
Che	Check responses to the following questions for each zone (north, central, south) separately.							
and	"Yes" responses to questions 1-3, distributional eview expanding populations within a plant community ciated) must be attached and distinguished for each	with which	ion (forming s it has not pre	elf-sustaining eviously been				
1.	Does species exist in areas outside its current, or former, cultivation in this zone? If Yes Go to question I-b 2 If No Go to question I-b 4	North Yes No	Central Yes No	South Yes No				
2.	Is species invading in this zone ONLY when natural disturbance regime and scale have been altered? If Yes Go to question I-b 3 If No (or unknown) Go to Section II-a	North Yes No □ ✓	Central Yes No	South Yes No				
3.	Has this species ever been known to persist if the natural regime is resumed and the natural flora/communities recover? If Yes (or unknown) Go to Section II-a If No Go to question I-b 4	North Yes No	Central Yes No	South Yes No □ ✓				
4.	Are there other zones in which this species has invaded or persisted after restoration? If Yes indicate I = 0 for this zone on page R-1 then Go to Section III-b If No Go to Section A	North Yes No	Central Yes No	South Yes No ✓ □				
	Section II-a is on page R-5, Section III-b is on page R-10, Section A is on page R-3							

✓ Check box if distribution records by zone are attached

II-a Known Impacts at WORST SITE(S) (without, or before, any control effort)

Add up points for ALL impact statements (i through vi) that are true at the worst affected site(s) in that zone then Go to Section II-b.

If scores are assigned, attach Ecological Impacts Worksheets that include citations and/or log of expert evidence.

Documentation of evidence of impacts for each zone (as defined in the Assessment Glossary) must be attached and include specific locations of observed impacts. If experts are providing evidence, their <u>written and signed observations</u> must be attached. Scientific names of impacted species (e.g., state-listed or native species with which hybridization occurs) must be included.

If there is no evidence of an impact then assign 0 points <u>unless</u> the impact is considered very likely (e.g., fixes N_2 in low nutrient soil which can change the flora) OR the impact (except vi) has been demonstrated in similar habitats in other zones or outside the state, OR if only one expert has documented the impact within the zone under consideration. In these cases assign 0.5 points.

		Points	North	Central	South
i)	Long-term alterations in ecosystem processes	15	15	15	X
ii)	Negatively impacted T & E species:				
	Documented loss has occurred	12	0	0	<u> </u>
	Loss is considered very likely	4	0	0	<u>x</u>
iii)	Displaces or precludes native vegetation (see criteria in assessment)	8	0		X
iv)	Changes community structure	4	4	4	X
v)	Hybridizes with native or economic plants	4	0	0	X
vi)	Covers over 15% of invaded stratum (unless iii)	1	0	1	X
		Total	19		X

Section II-b is on page R-6

II-b Range of Community Groups in Which Species is Invasive								
Is this species known to be invasive in at least four community groups OR does it occur in at least one community group of each of the terrestrial and palustrine/aquatic lists?								
If Yes list community groups below and west of the North Yes North Yes North Yes North II-a by 1.5	Central South Yes No Yes No							
If No multiply score from II-a by 1.0 I = 19	X							
Copy these Impact scores to page R-1. If $1 \ge 12$, Go to Section II-to Section III-a on page R-9.	-c on page R-7; If I < 12, Go							
If yes, then list relevant community groups for each zone: North:								
Central:								
South:	×							
	=							

II-c	Proportion	of Invaded Nati	iral Areas/Sites	with Significa	int Impacts
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Of the invaded sites, might any of the worst (statements i to v in Section II-a) impacts *only* occur under a few, identifiable, environmental conditions (i.e., conditions that occur in only 1 to 10% of the sites)?

To answer this question, for each statement in Section II-a, i - v that gets a score (> 0.5), determine the percentage from this table. Calculate the percentage separately for each zone.

	A) Number of Natural Areas/Sites with a Yes Answer*			B) Total Number of Natural Areas/Sites			
	North	Central	South	North	Central	South	
i)	2			2			
ii)	1			1			
–iii)	2			2		-	
iv)							
v)		· —					
TOTAL							
Total A/Total B x 100 = %	100						

If the percentage is between 1-10% from the table above, check Yes:

North		Cen	tral	South		
Yes	No	Yes	No	Yes	No	
	\checkmark		\checkmark			

If Yes

Documentation of evidence must be included in Ecological Impacts

Worksheets and Go to Section B

If No or No score Go to Section III-a

Section B is on page R-8 and Section III-a is on page R-9

^{*}Yes responses must receive a score. If only 1 individual reports any impacts, the result of which would be a 1-10% score, seek a second opinion on that impact/site.

Section B								
B1	B1 Can the specific habitats and communities in which significant impacts occur be clearly defined as different from invaded sites where there are no such impacts?			No	Yes	ral No	Sout Yes	h No
	If Yes	Attach such a site definition i to Question B2	ncludin	g docume	entation	of evid	ence an	d Go
	If No	Go to Section III-a						
B2		n distance of propagule/ al be estimated?	Nor Yes	No	Cen Yes	tral No	Sou Yes	th No
If Yes Attach a definition of that evidence, complete Section Potential for Expansion, No Enter a conclusion of No Section D for details on he use for the species.			III, IV, a agemen ess limit	and V to t Difficul ed use ap	derive i ty and proved	nformat Commer on page	ion on rcial Va R-17.	ilue. Go to
	If No	Go to Section III-a						
		Section III-a i.	s on pag	ge R-9 an	d Secti	on D is c	on page	R-19
		Check box ij	f site de	finition is	s attach	ed		
		Check box if	definiti	on of disi	tance o	f dispers	al is atı	tached

ONLY F	or Zones Where	e Plant Has Ir	vaded (Strike	out un-invade	l zones)
III-a Known Rate	of Invasion.				
two new di	ecies reported in screte population od within the last	is in any 12	North Yes No ✓ □	Central Yes No ☑ □	South Yes No
If Yes			highlight relevan se sites below an		
If No or Un	aknown Indic	ate P = Low a	nd Go to Section	ı IV	
			North	Central	South
		P	= <u>H</u>	<u>H</u>	X
	Copy these F	Potential value	s to page R-14; S	Section IV is of	n page R-12
If yes, then list rele	evant new sites in	nvaded for eac	h zone:		
North: See file					
See me					
Central : See file					
_					
South:					
Soutu.					

	ONLY F	or Zones Where Plant Has NO	T Invaded, (St	rike out invade	d zones)
III-t	Potential fo	or Invading Non-invaded Zones			
1.		s species be able to survive, , and disperse in the <u>climate</u> se?	North Yes No	Central Yes No	South Yes No
	If Yes If No	Provide documented eviden Indicate P = Low below and	ce below and Go	o to question II IV	I-b 2
2.	Do habitat	-types suitable for the growth	North	Central	South
	of this spe	cies occur in this zone?	Yes No	Yes No	Yes No
	If Yes	Provide documented evide invaded zone is equal to the Section III-a - if there is a Low, use High). If an adjacent zone is If the only adjacent z	e P assigned to n option between s invaded Go to	the nearest inva en two zones w Section III-c	aded zone (from ith P = High or
	If No	Indicate P = Low below and	Go to Section	IV	
			North	Central	South
		P =	Copy these Po	Xotential categor	H_ies to page R-14
If ye	s, then <i>provid</i>	le evidence that suitable climate	and habitat-type	es for survival a	nd impacts exist
in zo	ne(s): Zone =	South :			
Naturali Dade an	zed in St Lucie d Broward (FT	e county and specimens from Lee ar G).	nd Palm Beach co	unties (FLAS). S	pecimens from Miam
All habi	tat types occur	in all zones.			
		Section III-c	is on Page R-11	and Section IV	is on page R-12

II-c	Potential 1	or Causing Ecol	ogical In	npacts in No	n-invaded 2	Zones	
	impacts id zone unde Endangere	lentified in Secti r consideration (ed or Threatened	on II-a o (e.g., do t I species	ccur. Do the the negativel or Species o	ese commu y impacted f Special Co	s in which any econities occur in the Federal- or Floridoncern occur in the the response here	e un-invaded da-listed nis zone)? If
		Nes 🗀	orth No	Central Yes No	Sout Yes	h No	
	If Yes	for this zone adjacent inva	e from : aded_zor with br	zero to mat ne (use high rackets{} to	ch the Eco est value i	se the Ecological blogical Impact f there is an opt score was derive	Score for the ion; mark this
	If No	Go to Section	n IV				
yes	s, provide ev	idence that com	munities	where ecolo	gical impac	ts occur exist in i	on-invaded
	(s) : Zone = \underline{s}						
habi	tat types occi	ır in all zones					

IV Factors That Increase the Difficulty of Management

If scores are assigned, attach Management Worksheets that include citations and/or log of expert evidence.

Add up all points from statements that are true for this species and documentation of evidence must be provided. Assign 0.5 point for each statement for which a true/false response is not known.

	Points	All Zones
i) No known permitted control techniques.	15	0
ii) Difficult to control without damage to native species in:		
≥50% of discrete sites;	10	_ 0
25% to 50% of discrete sites.	7	0
iii) Total costs of control per acre in first year are > \$1,500/acre	5	0
iv) Further site restoration is necessary following plant death.	5	0
v) Total area to be managed: ≥ 500 acres;	5	0
< 500 but > 50 acres.	2	2
vi) Re-treatments following the first year of control expected:		
at least once a year for the next 5 years;	5	5
1 to 4 times over the next 5 years OR regrowth not known.	2	2
vii) Access to most areas is difficult.	3	0
viii) Occurs in more than 20 discrete populations.	3	3
ix) Many persistent or dispersed propagules per plant	3	3
x) Early reproduction.	2	0.5
	Total for M =	15.5

Copy these Management scores to page R-1 then Go to Section V on page R-13

V	Economic	Value
1.	Does this	species have any economic value in Florida?
	✓ Yes	Go to question V - 2
	□No	Indicate V = No on page R-1, but treat as Low in the Conclusions table on page R-16. Go to Conversion of Index Scores to Index Categories.
2.		ccies sold in national or regional retail stores? (E.g., WalMart, Home Depot, permarkets.)
	Yes	Go to Conversion of Index Scores to Index Categories on page R-14 and indicate V = High
	✓ No	Go to question V - 3.
3.	State-wid	e are there more than 10 commercial growers of this species?
	✓ Yes	Go to Conversion of Index Scores to Index Categories on page R-14 and indicate V = High
	☐ No	Go to question V - 4.
4.	Does this purposes?	species have economic value for forage, biomass, or remediation?
	Yes	If net value ≥ \$50,000 / yr, Go to Conversion of Index Scores to Index Categories (page R-14) and indicate V = High
	☐ No	If net value < \$50,000 / yr, Go to Conversion of Index Scores to Index Categories (page R-14) and indicate V = Low
		Conversion of Index Scores to Index Categories is on page R-14

Conversion of Index Scores to Index Categories

Using the following table, determine the appropriate category (Low to High or Very High) for each index. (Categories for Potential for Expansion Index and Commercial Value were copied from Pages R-9, R-10, and R-13)

Category		<u>Impacts</u>	Management Difficulty
Low	(L)	< 12	< 15
Medium	(M)	12 - 26.4	
High	(H)	26.5 - 41	≥15
Very High	(VH)	> 41	

	J.	mpact			Potential		Management	Value
	North	Central	South	North	Central	South	All zones	All zones
Category	<u>M</u>	<u>M</u> _	_M_	_H_	<u>H</u>	H	H	н

Copy these Index categories to page R-1 then Go to Conclusions on pages R-15 & 16

Conclusions are derived separately for each zone from the combined index categories using the table on page R-14. Whenever new information becomes available about the invasive status of a species (e.g., new populations, new data on ecological impacts) that species should be reviewed and if necessary reassessed. The following text corresponds to the abbreviations in the table on page R-14 (text in bold is approved language for IFAS documents, text in parentheses provides additional instructions to IFAS faculty and for reassessment):

OK =

Not considered a problem species at this time (may be recommended by IFAS faculty and reassess in 10 years).

Caution =

Caution - manage to prevent escape (may be recommended by IFAS faculty and reassess in 2 years).

No - unless limited use approved =

Go to Section D for details on how to make a proposal for specified and limited use for the species.

If a proposal for specified and limited use has not been approved by the IFAS Invasive Plant Working Group (IPWG) the conclusion is:

Invasive and not recommended by IFAS faculty (reassess in 10 years - a proposal for specified and limited use may be submitted to the IPWG at any time). In IFAS publications, reference can be made to the Web site for the Center for Aquatic and Invasive Plants (http://plants.ifas.ufl.edu/assessment) to determine if any specified and limited uses have been approved since the time of publication.

If a proposal for specified and limited use has been approved by the IPWG the conclusion is:

Invasive and not recommended by IFAS faculty except for "the specified and limited" use that has been approved by the IFAS Invasive Plants Working Group (reassess in 2 years).

OR

Predicted to be invasive*: Recommended only under specific management practices agreed upon by the IFAS Invasive Plant Working Group (reassess in 2 years).

In IFAS publications the term "specified and limited" would be replaced by a summary of the specific use that has been approved (e.g., indoor foliage). Details of approved specified and limited uses are to be kept with other assessment documentation.

No =

Invasive and not recommended by IFAS faculty (reassess in 10 years).

*Reported invasiveness in environments similar to but outside of Florida is one basis for this conclusion

Determine Index Categories for ALL zones before starting this Section.

For each zone identify the combination of Index categories from page R-14 in the table below. The asterisk indicates the appropriate Conclusion. Footnotes and space for recording the Conclusions are provided on page R-17.

Index Categories
L/H = either Low or High

Conclusions
See page R-15 for full text for conclusions

III II 1871				No	No unless	Caution	OK
Impact	Potential	Manage.	Value		limited use approved		
VH	L/H	L/H	L/H	*			
H H H H H H	H H H L L L	H H L L H H L	L H L H L H	* * *	_{ak} 1 ak 1		
M M M M M M M	H H H L L L L	H H L L H H L	L H L H L H L	* *	* 1 * 1 * 1 * 1 * 1 * 1 * 1		
L L L L	H H H H L	H H L L L/H	L H L H L/H			*2 *2 *2 *2	*2,3

Footnotes for table of Conclusions

- ¹ Enter a conclusion of **No unless limited use approved** in the spaces below. **Go to Section D** on page R-19 for details on how to make a proposal for specified and limited use for the species.
- ² If a zone is invaded and has Impact = Low or Medium but the <u>adjacent zone</u> has Impact = High or Very High or has received a **No** or **No** unless limited use approved conclusion via Section C, then for the invaded zone under consideration Go To Section C.
- ³ For zones where a species has <u>not</u> invaded, if Potential = Low but Impacts in an <u>adjacent invaded</u> zone are Medium, High, or Very High, then use **Caution** for the un-invaded zone. If Impact = Low in the adjacent zone or it is not yet invaded, then retain **OK**. Because the Conclusion for one zone can be modified by the Index Categories or Conclusions for an adjacent zone, be sure to check Conclusions for each zone twice.

Conclusions North Invasive & not recommended except for "specified and limited" uses

Central Invasive & not recommended except for "specified and limited" uses

South Invasive & not recommended except for "specified and limited" uses

Copy these Conclusions to page R-1; Section C is on page R-18; Section D is on page R-19.

Section C
Was the first record of this species in natural areas of this zone less than 10 years ago if herbaceous or less than 20 years ago if woody?
Yes Highlight distribution records that show first documentation in Florida is less than 10 or 20 years ago then Go to question C2
No Conclusion for this zone remains as Caution - manage to prevent escape OR Not considered a problem species at this time.
C2 Can this species reproduce and disperse in this zone?
The conclusion for this zone is Invasive and not recommended by IFAS faculty OR Invasive and not recommended by IFAS faculty except for the specified and limited use that has been approved by the IFAS Invasive Plants Working Group to match the adjacent, highly impacted zone. However, do not alter the Ecological Impact category for this zone from Low or Medium. (Thus, if there is an adjacent non-invaded zone, the Ecological Impact category for that zone will remain Low or Medium.) The assessment for this zone can be considered complete now, even if the "documentation of evidence" requirement for Ecological Impacts is not fulfilled (i.e., there are only one or two expert opinions on this species in this zone).
OR Not considered a problem species at this time
Select appropriate Conclusion and enter it on Page R-1 and R-16
If yes, then provide evidence of reproduction and dispersal in this zone: Zone =

Section D

If there are specific circumstances in which this species could be used that would not be expected to result in escape and invasion (e.g., foliage plants that are only used indoors and which can be reasonably prevented, by conspicuous labeling, from use or disposal in the landscape) **OR** if it is possible to define how to avoid dispersal of this species to habitats where its impacts are high (i.e., from Section B), then based on a proposal that is approved by the IPWG the conclusion becomes **Invasive and not recommended by IFAS faculty except for "the specified and limited" use that has been approved by the IFAS Invasive Plants Working Group**. The proposal for specified and limited use should document how invasion would be prevented, and should stipulate that disposal of any propagules must ensure their destruction. Reassess this species in 2 years (or in the case of referrals from Section B, immediately if the incidence of worst-case impacts increases above 10%.)

In IFAS publications the term "the specified and limited" would be replaced by a summary of the specific use that has been approved (e.g., indoor foliage).

Conditions of Acceptable Specified and Limited Use:

urther	r inform	ation need	led:				