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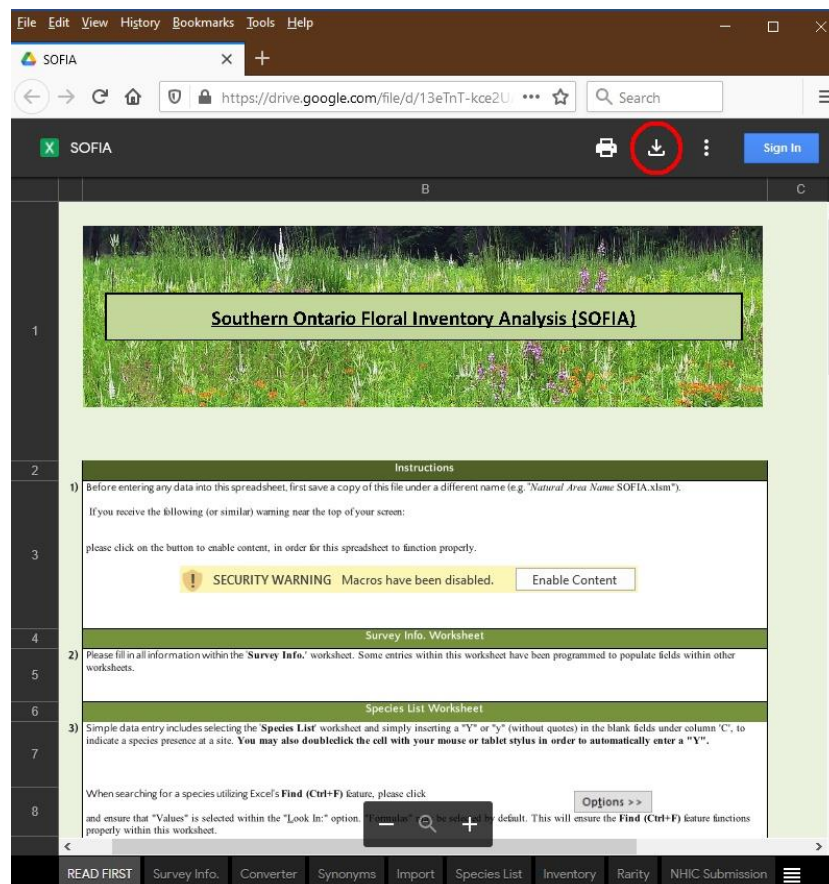
The Essex Region Conservation Authority (ERCA) is pleased to announce the **newest** version of **SOFIA (Southern Ontario Floral Inventory Analysis) – Version 3.41**. SOFIA is a macro-enabled Microsoft Excel spreadsheet which imports, tabulates, summarizes, analyzes and automates floral inventories of natural areas/features within southern Ontario.

Download

The latest beta version of SOFIA is available to download via our Google Drive at the following link:

<https://drive.google.com/file/d/13eTnT-kce2UArLJZOxLLSwkx4bCZovaj/view?usp=sharing>

After clicking on the link above, just click on the download icon in the upper right-hand corner of your browser window (circled below in red) and save the Excel file to your computer or tablet. **(If clicking on the above link does not work, simply copy and paste the link address directly into your browser.)**



Import (Updated!)

Import previous inventories – automatically updating the taxonomy

SOFIA now allows you to copy and paste a list of *scientific names* into the built-in converter, and automatically updates the species names to the newest taxonomy. This works best when the list of scientific names is copied from a Microsoft Word table into the spreadsheet. Older inventories that may be within documents of a different format (such as PDF format) can be easily converted to Microsoft Word .docx format utilizing the free online file converter website [Zamzar](https://www.zamzar.com/) (<https://www.zamzar.com/>). Older scientific names are crossed referenced to a "Synonyms" worksheet and updated to the newest nomenclature automatically. The list is then imported into SOFIA by simply pressing a button.

Features

Tabulate and filter – on a variety of attributes.

Just tell SOFIA which species occur at your site, from the master list of NHIC List of Ontario Vascular Plants, and it creates a table of your floral inventory. Useful attributes for each species are also extracted from the master list. The resulting inventory table is filtered on all columns in order to allow you to customize the table content. Customized tables can simply be copied and pasted into any associated Microsoft Word report. NHIC tracked species are automatically populated into the NHIC multiple observations submission spreadsheet.

Scientific Name	Common Name	Floral Inventory														
		CW	GRank	COSEWIC	Nrank	SARO	SRank	CZ	CZRESTR	ES	Type	Invasive	CCVI	CCVI Conf.	Tallgrass	
<i>Acalypha rhomboides</i>	Common Three-seeded Mercury	3	G5		N5		S5	C			C	FO				
<i>Acer negundo</i>	Manitoba Maple	0	G5		N5		S5	C			C	TR	Y			
<i>Acer rubrum</i>	Red Maple	0	G5		N5		S5	C			C	TR				
<i>Acer saccharinum</i>	Silver Maple	-3	G5		N5		S5	C			C	TR				
<i>Acer saccharum</i>	Sugar Maple	3	G5		N5		S5	C			C	TR	LV	VH		
<i>Acer x Freemanii</i>	(Acer rubrum X Acer saccharinum)	0	GNA		NNA		SNA	hyb			hyb	TR				
<i>Actaea pachypoda</i>	White Baneberry	5	G5		N5		S5	C			C	FO				
<i>Actaea racemosa</i>	Black Snake-root	3	G4		N2		S2	R		CZ		FO				
<i>Actaea rubra</i>	Red Baneberry	3	G5		N5		S5	C			U	FO				
<i>Agrimonia gryposepala</i>	Hooked Agrimony	3	G5		N5		S5	C			C	FO				
<i>Alliaria petiolata</i>	Garlic Mustard	0	GNR		NNA		SE5	IC			IC	FO	Y			
<i>Ambrosia artemisiifolia</i>	Common Ragweed	3	G5		N5		S5	C			C	FO				
<i>Ambrosia trifida</i>	Great Ragweed	0	G5		N5		S5	C			C	FO				
<i>Aplopappus americanus</i>	American Groundnut	-5	G5		N5		S5	C			C	VI				Y
<i>Apocynum cannabinum</i> var. <i>cannabinum</i>	Hemp Dogbane	0	G5T5		N5		S5	C			C	FO				Y
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	3	G5		N5		S5	C			C	FO				Y
<i>Arisaema triphyllum</i> ssp. <i>triphyllum</i>	Jack-in-the-pulpit	-2	G5T5		N5		S5	C			C	FO				
<i>Asclepias incarnata</i> ssp. <i>incarnata</i>	Swamp Milkweed	-5	G5T5		N5		S5	C			C	FO				Y
<i>Asparagus officinalis</i>	Garden Asparagus	3	G5T		NNA		SE5	IC			IC	FO				
<i>Athyrium filix-femina</i> var. <i>angustum</i>	Northeastern Lady Fern	0	G5T5		N5		S5	C			C	FE				
<i>Atriplex patula</i>	Spear Saltbush	-3	G5		NNA		SE5	IU			IU	FO				
<i>Berberis thunbergii</i>	Japanese Barberry	3	GNR		NNA		SE5	IX			IU	SH	Y			
<i>Bidens frondosa</i>	Devil's Beggarticks	-3	G5		N5		S5	C			C	FO				
<i>Carex frankii</i>	Frank's Sedge	-1	G5		N2		S2	R		CZ	R	SE				
<i>Carex grayi</i>	Gray's Sedge	-1	G4G5		N4N5		S4	U			CZ	SE				
<i>Carex squarrosa</i>	Squarrose Sedge	-3	G4G5		N2		S2	R		CZ	C	SE				
<i>Carpinus caroliniana</i> ssp. <i>virginiana</i>	Blue-beech	0	G5T5		N5		S5	C			C	SH				
<i>Carya caroliniana</i>	Bitternut Hickory	0	G5		N5		S5	C			C	TR				
<i>Carya glabra</i>	Pignut Hickory	3	G5		N3		S3	U		CZ	R	TR				Y
<i>Carya laciniata</i>	Shellbark Hickory	-3	G5		N3		S3	U		CZ	C	TR	LV	Most		Y
<i>Carya ovata</i> var. <i>ovata</i>	Shagbark Hickory	3	G-75		N5		S5	C			C	TR				
<i>Celastrus scandens</i>	Climbing Bittersweet	3	G5		N5		S5	C			C	VW				
<i>Celtis occidentalis</i>	Common Hackberry	0	G5		N4		S4	C			C	TR				
<i>Chenopodium album</i>	Common Lamb's-quarters	3	G5		NNA		SE5	IC			IC	FO				
<i>Eurybia macrophylla</i>	Large-leaved Aster	5	G5		N5		S5	C			C	FO				
<i>Symphoricarpos ericoides</i> var. <i>ericoides</i>	White Heath Aster	3	G5T5		N5		S5	C			C	FO				Y
<i>Symphoricarpos lateriflorum</i> var. <i>lateriflorum</i>	Calico Aster	0	G5T5		N5		S5	C			C	FO				

New: SOFIA now includes the identification of **tallgrass indicators** as well as **species vulnerable to climate change**, in the resulting inventory table.



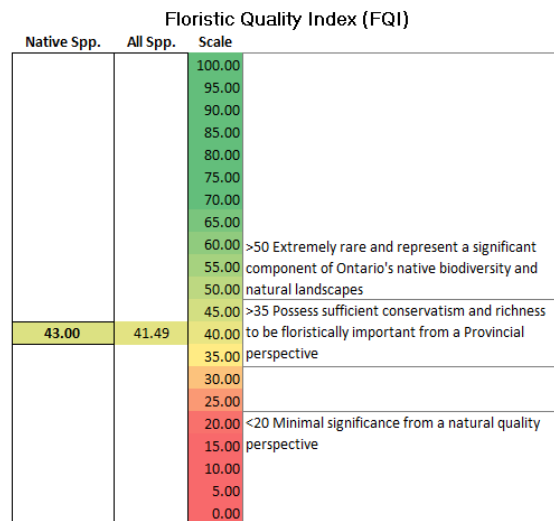
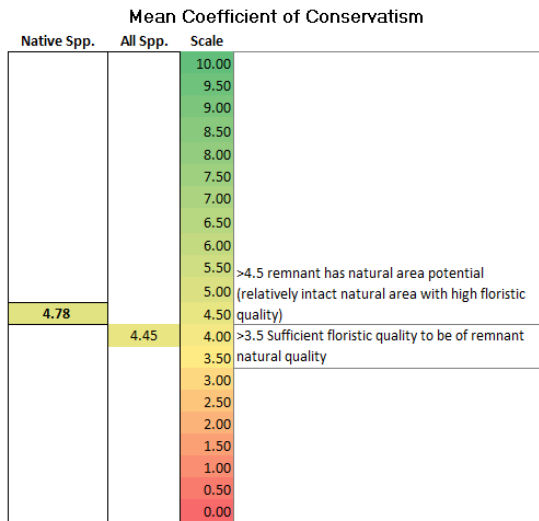
Summarize/analyze your inventory – see summary statistics and perform a Floristic Quality Assessment (FQA)

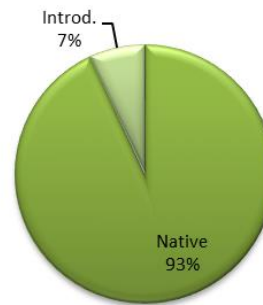
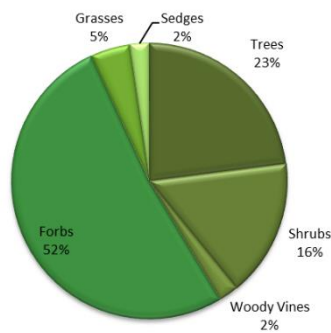
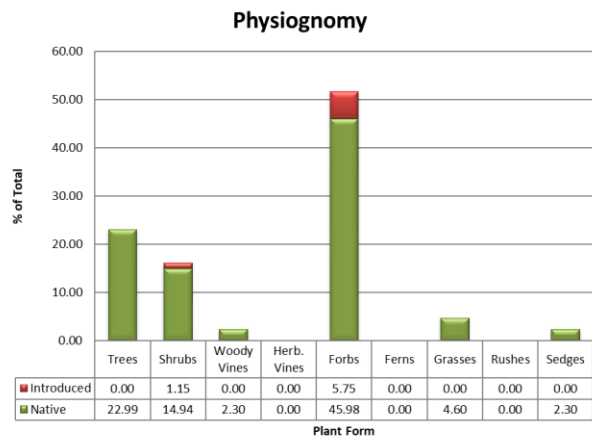
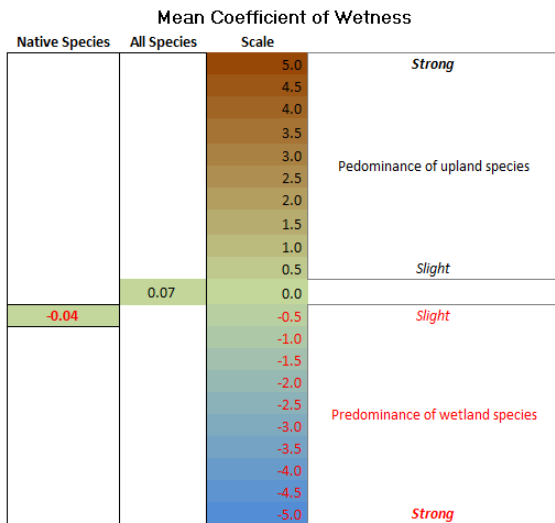
SOFIA performs a wide variety of analyses on your list of floral species including summary statistics such as the total number of species, number and proportion of native vs. introduced species, number of rare species, mean coefficient of wetness, etc.

SARO Status		
MNR Status	Number of Species	% of Total Species
END	1	0.01
THR	1	0.01
SC	1	0.01
Total SARO SAR	3	0.03
Provincial Rarity		
SRank	Number of Species	% of Total Species
S1		
S1?		
S1S2		
S1S3		
S2	1	0.01
S2?	2	0.02
S2S3		
S2S4		
S3	4	0.05
S3?	1	0.01
S3S4		
Total Provincially Rare	8	0.09

Floristic Analysis	
Total Spp.	87
Native	81
% Native	93.10
Introd.	6
% Introd.	6.90
Coefficient of Conservatism	
SUM CC	387
Mean CC (Natives)	4.78
Mean CC (All Spp.)	4.45
FQI	
FQI (Natives)	43.00
FQI (All Spp.)	41.49
Mean Coefficient of Wetness	
Natives	-0.04
All Species	0.07

SOFIA also performs a Floristic Quality Analysis and an analysis of physiognomy including the generation of attractive tables, charts and graphics.





Application

Floral Inventories

From the largest natural area to the smallest polygon/plot within a feature, SOFIA can be used to efficiently tabulate, analyze and summarize your floral inventory, streamlining reporting and monitoring.

Ontario Wetland Evaluation System (OWES)

SOFIA is a great tool for completing wetland evaluations utilizing the Ontario Wetland Evaluation System (OWES) as it extracts, tabulates and summarizes all of the rare floral species, allowing you to quickly complete the scoring within the "special features" component of the OWES evaluation.

Environmental Impact Assessments (EIAs)

SOFIA is now a requirement for all Environmental Impact Assessments (EIAs) reviewed by ERCA within the Essex region, in accordance with ERCA's EIA Guidelines (2019). These guidelines may be downloaded by browsing to the following link on the ERCA website:

<https://essexregionconservation.ca/resources/reports/environmental-impact-assessment-guidelines/>

Share

Free to distribute openly

Practitioners within various conservation agencies and organizations (Conservation Authorities; Ministry of Natural Resources and Forestry; Ministry of Environment, Conservation & Parks; Parks Canada; NGOs; etc.), professional ecological consultants, naturalists, and academia are free to use and distribute SOFIA.

Feedback

Comments, suggestions for improvements, and bug reports are always welcome. Please submit any directly to:



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