

Data Consolidation for the International Space Station's Environmental and Veggie Microbial Isolates Increases Trending Capabilities

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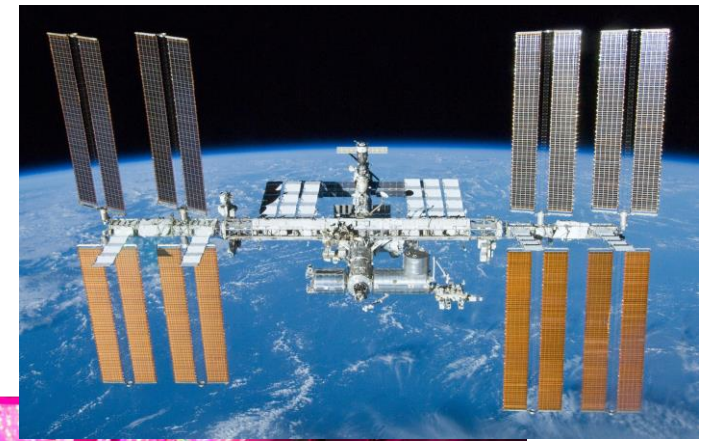
Goals

➤ CURRENT GOALS:

- Compile and standardize microbiological data from JSC environmental ISS sampling and KSC Veggie flight and ground samples into a standard format
- Develop a user-friendly tool to analyze the data for trends based upon multiple searchable fields
- Identify microbes of interest at the genetic level to determine possible origin and relationships

➤ FUTURE GOALS:

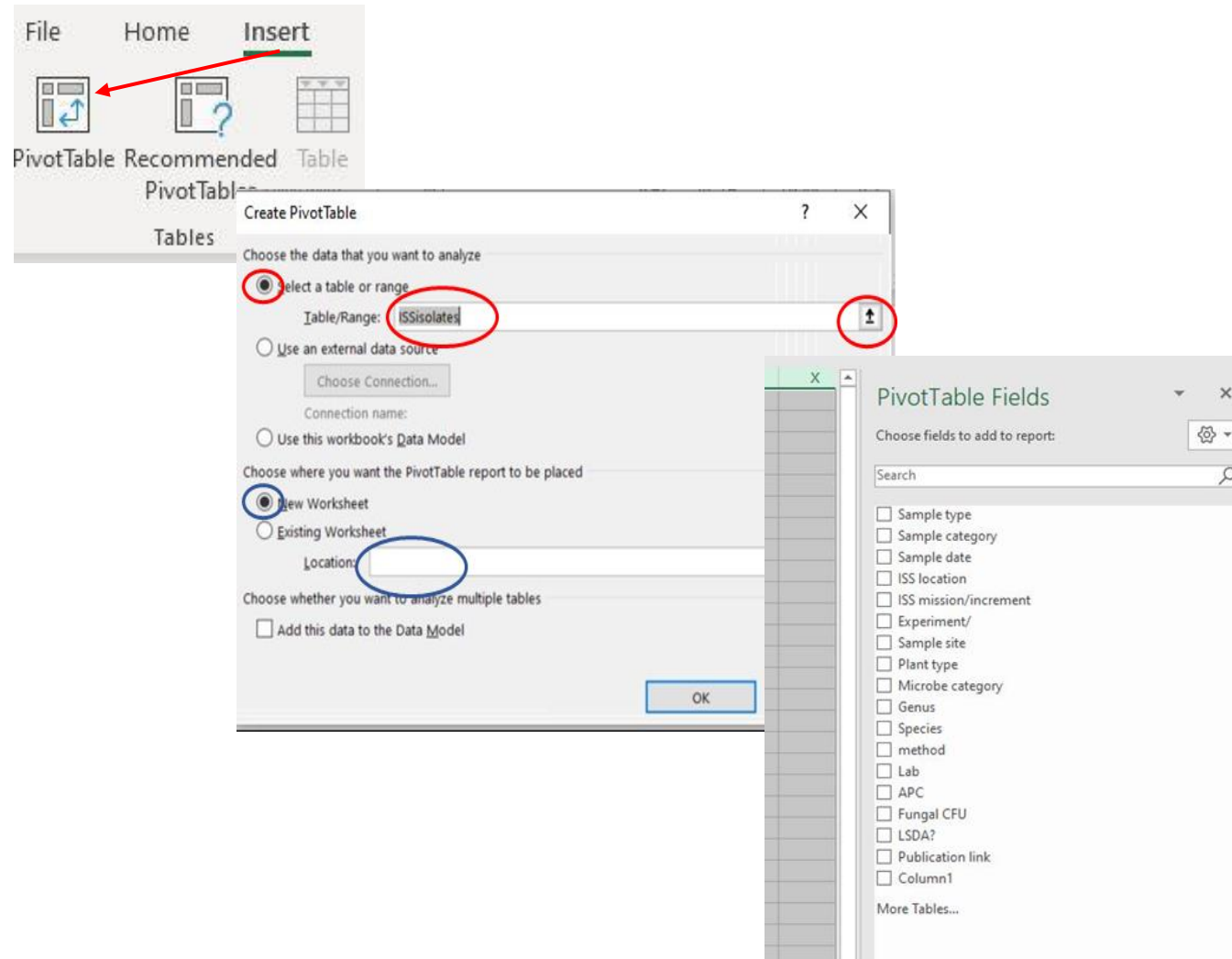
- Make this database available to external scientists
- Build upon and maintain the compiled database



METHODS

- Acquire and organize ISS environmental data to include
 - ISS Air
 - ISS Surface
 - Veggie
 - Ground Surfaces
- 2002 to Present
- Develop a series of searchable fields of interest for spatial and temporal categories
- Develop tutorial for use

Tutorial



Tool to answer spatial or temporal inquiries

Find some answers

PivotTable Fields

Choose fields to add to report:

Search

- Sample type
- Sample category
- Sample date
- ISS location
- Sample site
- Microbe category
- Genus
- Species
- ISS mission
- method
- Lab
- APC
- Fungal CFU
- Column1

More Tables...



PivotTable Fields

Choose fields:

- Sample type
- Sample category
- Sample date
- ISS location
- ISS mission/increment
- Experiment/
- Sample site
- Plant type
- Microbe category
- Genus
- Species
- method
- Lab
- APC
- Fungal CFU
- LSDA?
- Publication link
- Column1

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Sort A to Z

Sort Z to A

More Sort Options...

Clear Filter From "ISS location"

Label Filters

Value Filters

Search

- (Select All)
- Columbia module
- FGB
- Node 1
- Node 2
- Node 3
- PMM
- Service module
- US lab

OK Cancel

Count of Genus	Achromobacter	Aspergillus	Bacillus	Enterobacter	Fusarium (blank)	Grand Total
Columbia module	2	1	2	1		6
2013				1		1
2016					1	1
2017			1			1
2018	2					2
2019			1			1
FGB			1			1
2002			1			1
Node 1			2	3		5
2002			1			1
2015			1			1
2016				1		1
2019				2		2
Node 2				2		2
2019				2		2
Node 3				1		1
2016				1		1
PMM			1			1
2015			1			1
Service module			1			1
2002			1			1
US lab				2		2
2019				2		2
(blank)					1	1
<11/8/2002					1	1
Grand Total	2	1	7	9	1	20

Choose fields to add to report:

Search

- Sample type
- Sample category
- Sample date
- ISS location
- Sample site
- Microbe category
- Genus
- Species
- ISS mission
- method
- Lab
- APC
- Fungal CFU
- Column1
- Quarters
- Years

More Tables...

Filters

Rows

- ISS location
- Years
- Sample date

Columns

- Genus

Values

- Count of Genus

Searchable fields to build the report you want

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