

# Excel Tips

## Biodiversity Data Mobilization - Data Cleaning Exercise



Picture from Marcel Hol, obtained via <http://www.freeimages.com/photo/laundry-1522596>

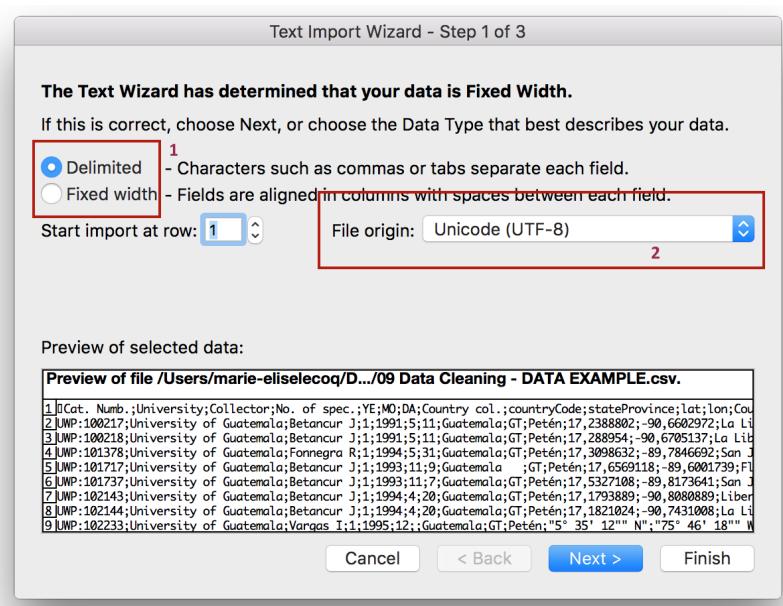
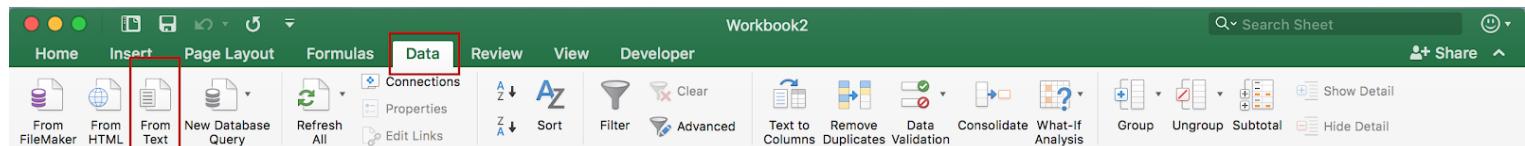
## Mac instructions

### 1. Open a text file

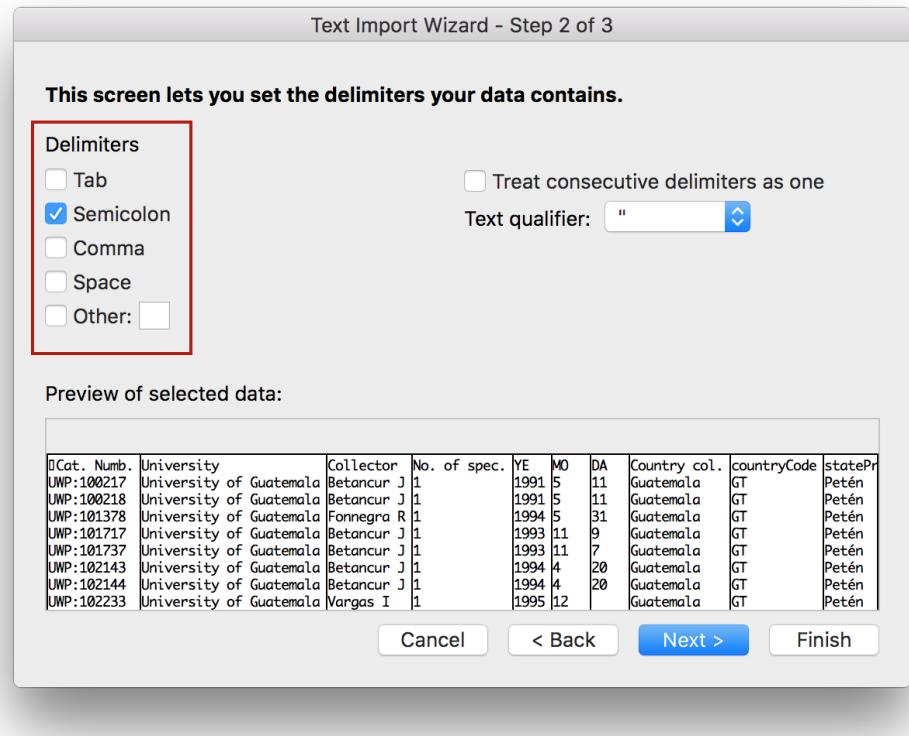
#### 1.1. Solution 1 : with Excel tools

##### Open Excel with Mac

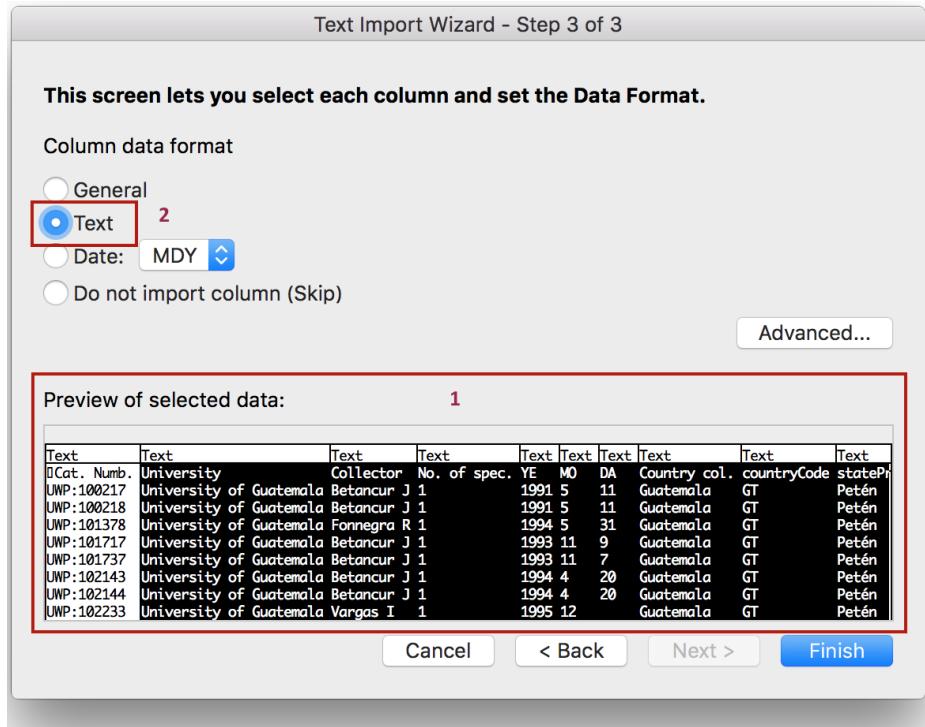
On the tab **Data**, then choose **From text**.



On the Text Import Wizard - Step 1 of 3, select **Delimited (1)**, and choose **Unicode (UTF-8) (2)** as File origin encoding then click **Next**



On the Text Import Wizard - Step 2 of 3, select the delimiter or create one then click **Next**

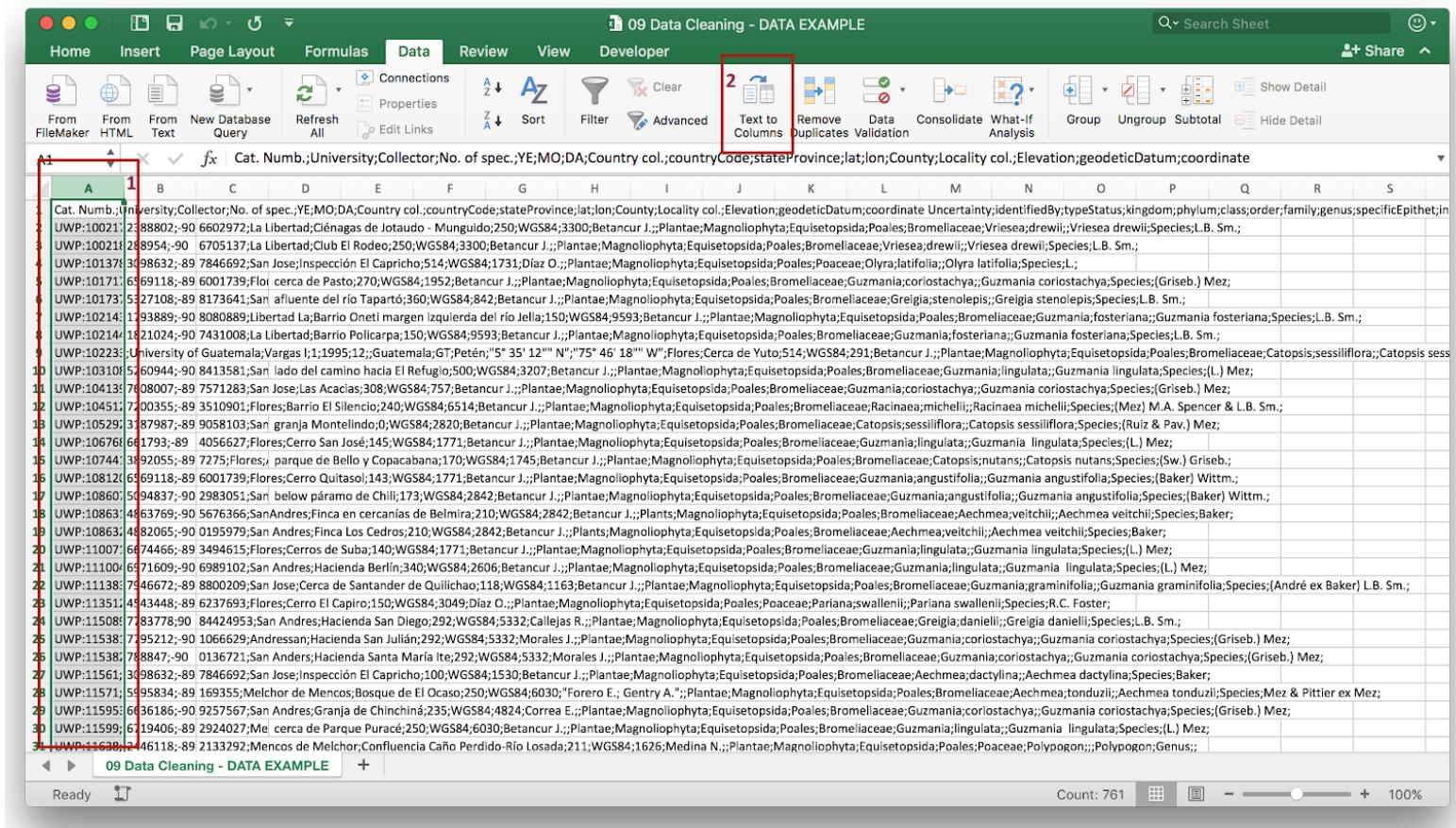


On the Text Import Wizard - Step 3 of 3, select all the column (1) (by click on shift and slide the cursor to the right) and put them as **Text** to avoid any format errors due to Excel.

On the Import Data last window, choose **Existing sheet** and click on **Ok**

## 1.2. Solution 1 : after opening a Text file (.txt, .csv, .etc) or on Excel

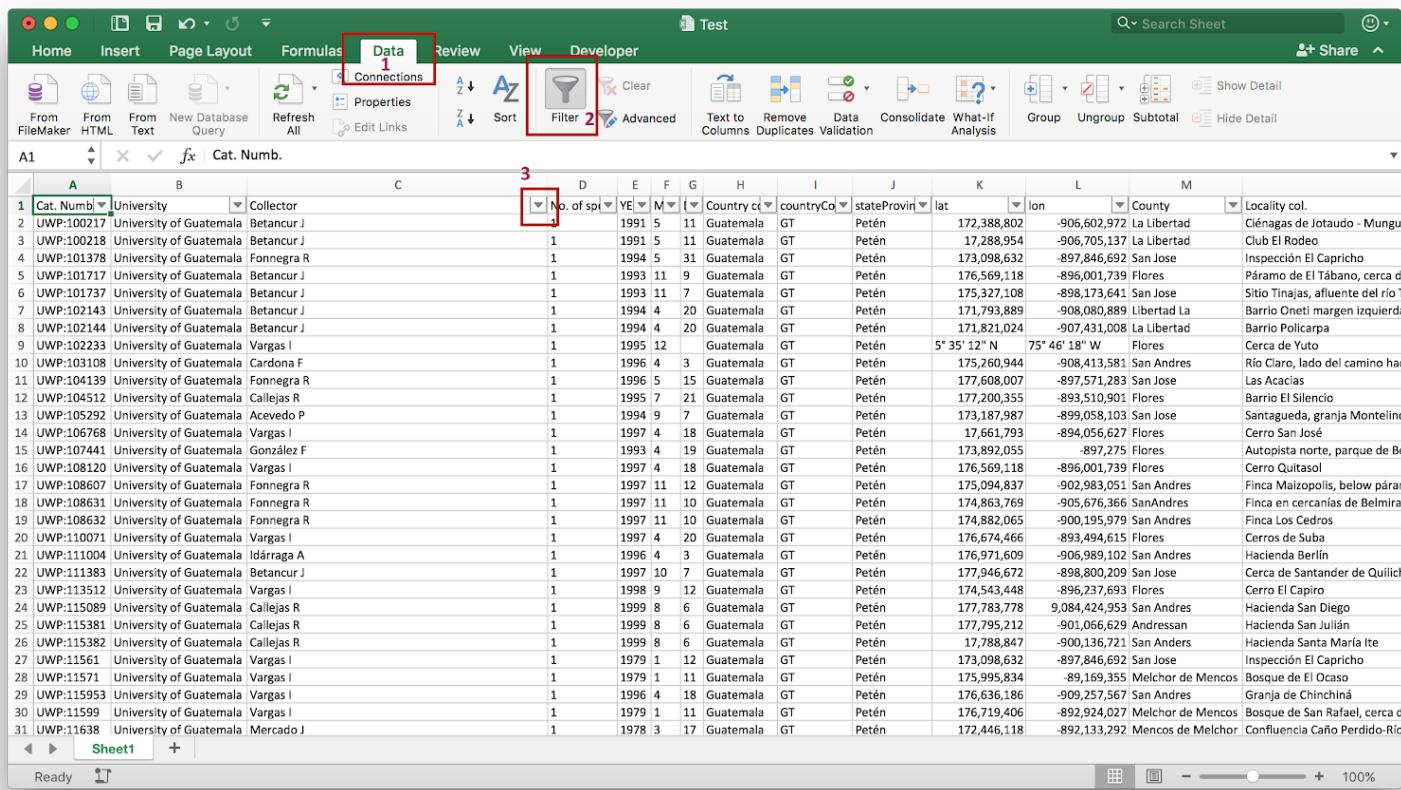
Double click on the CSV file (.csv).



Select the entire first column, then on the tab **Data**, choose **Text to Columns** and follow the **Import Text Wizard** (like solution 1.1).

## 2. Add a filter

Open the Excel spreadsheet.

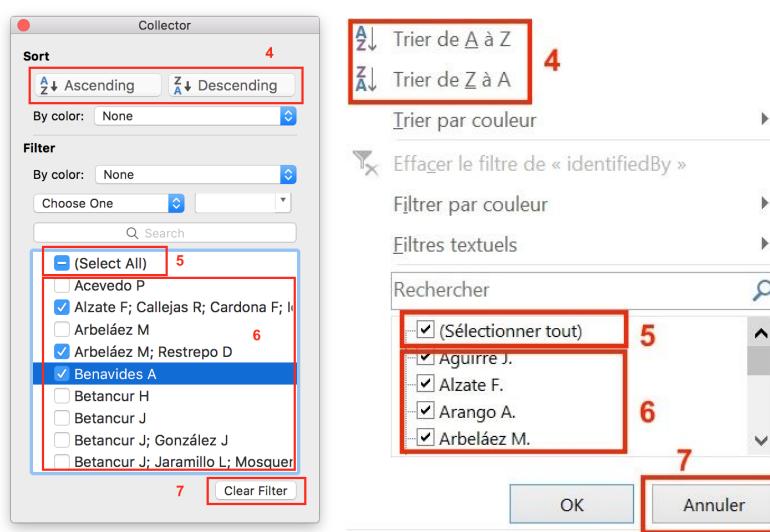


The screenshot shows a Microsoft Excel spreadsheet with the following details:

- Excel ribbon:** The 'Data' tab is selected, highlighted with a red box. The 'Filter' icon (a funnel) is also highlighted with a red box in the toolbar.
- Data table:** The table contains 31 rows of data, with the first row serving as the header. The columns include 'Cat. Numb.', 'University', 'Collector', 'No. of sp.', 'Y', 'M', 'Country', 'Country Co.', 'State/Prov.', 'Lat', 'Lon', 'County', and 'Locality col.'.
- Filter menu:** A red box highlights the small down arrow next to the 'No. of sp.' column header, indicating where to click to open the filter menu.

On the tab **Data** (1), choose **Filter** (2). You can click on the small down arrow (3) of the column you want to filter.

On the filter menu, you will be able to make **ascending or descending sorting** (4), **select or deselect all filters** (5), choose **specific data to filter** (6) and **clear your filters** (7).



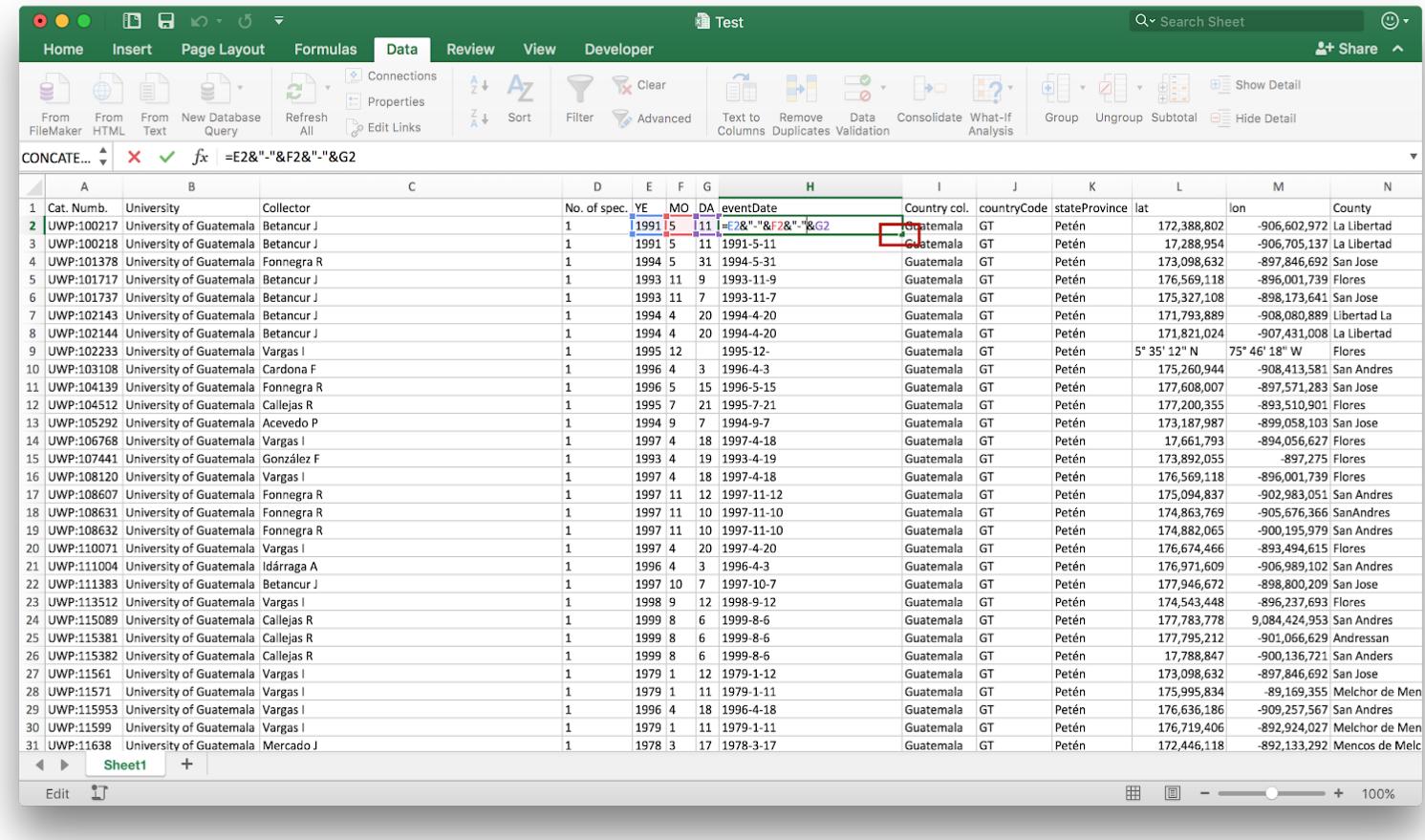
The 'Collector' filter dialog box is shown for both Mac (left) and Windows (right). The Mac version includes a 'Sort' section with 'Ascending' and 'Descending' buttons (4), a 'Filter' section with a 'Choose One' dropdown (5), and a 'Rechercher' section with a search bar (6). The Windows version includes a 'Trier par couleur' section with a 'Filtre par couleur' button (4), and a 'Rechercher' section with a search bar (6). Red numbers 4, 5, 6, and 7 are overlaid on the dialog to indicate specific features: 4 points to the sorting buttons, 5 points to the 'Select All' checkbox, 6 points to the 'Specific data to filter' checkboxes, and 7 points to the 'Clear Filter' and 'Annuler' buttons.

With Mac (left) and Windows (right)

### 3. Merge column

Open the Excel spreadsheet. The new column **eventDate** will be the result of the merging of column **YE** (column E), **MO** (column F) and **DA** (column G).

Create the **eventDate** on the right of **DA** (right click on the column then insert). The new column will be column **H**.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	CONCATEN...			No. of spec.	YE	MO	DA	eventDate	Country col.	countryCode	stateProvince	lat	lon	County
1	Cat. Numb.	University	Collector						Guatemala	GT	Petén	172,388,802	-906,602,972	La Libertad
2	UWP:100217	University of Guatemala	Betancur J	1	1991	5	11	1991-5-11	Guatemala	GT	Petén	17,288,954	-906,705,137	La Libertad
3	UWP:100218	University of Guatemala	Betancur J	1	1991	5	11	1991-5-11	Guatemala	GT	Petén	173,098,632	-897,846,692	San Jose
4	UWP:101378	University of Guatemala	Fonnegra R	1	1994	5	31	1994-5-31	Guatemala	GT	Petén	176,569,118	-896,001,739	Flores
5	UWP:101717	University of Guatemala	Betancur J	1	1993	11	9	1993-11-9	Guatemala	GT	Petén	175,327,108	-898,173,641	San Jose
6	UWP:101737	University of Guatemala	Betancur J	1	1993	11	7	1993-11-7	Guatemala	GT	Petén	171,793,889	-908,080,889	Libertad La
7	UWP:102143	University of Guatemala	Betancur J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	171,821,024	-907,431,008	La Libertad
8	UWP:102144	University of Guatemala	Betancur J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	175,260,944	-908,413,581	San Andres
9	UWP:102233	University of Guatemala	Vargas I	1	1995	12		1995-12-	Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores
10	UWP:103108	University of Guatemala	Cardona F	1	1996	4	3	1996-4-3	Guatemala	GT	Petén	177,608,007	-897,571,283	San Jose
11	UWP:104139	University of Guatemala	Fonnegra R	1	1996	5	15	1996-5-15	Guatemala	GT	Petén	177,200,355	-893,510,901	Flores
12	UWP:104512	University of Guatemala	Callejas R	1	1995	7	21	1995-7-21	Guatemala	GT	Petén	173,187,987	-899,058,103	San Jose
13	UWP:105292	University of Guatemala	Acevedo P	1	1994	9	7	1994-9-7	Guatemala	GT	Petén	17,661,793	-894,056,627	Flores
14	UWP:106768	University of Guatemala	Vargas I	1	1997	4	18	1997-4-18	Guatemala	GT	Petén	173,892,055	-897,275	Flores
15	UWP:107441	University of Guatemala	González F	1	1993	4	19	1993-4-19	Guatemala	GT	Petén	176,569,118	-896,001,739	Flores
16	UWP:108120	University of Guatemala	Vargas I	1	1997	4	18	1997-4-18	Guatemala	GT	Petén	175,094,837	-902,983,051	San Andres
17	UWP:108607	University of Guatemala	Fonnegra R	1	1997	11	12	1997-11-12	Guatemala	GT	Petén	174,863,769	-905,676,366	SanAndres
18	UWP:108631	University of Guatemala	Fonnegra R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	174,882,065	-900,195,979	San Andres
19	UWP:108632	University of Guatemala	Fonnegra R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	176,674,466	-893,474,615	Flores
20	UWP:110071	University of Guatemala	Vargas I	1	1997	4	20	1997-4-20	Guatemala	GT	Petén	176,971,609	-906,989,102	San Andres
21	UWP:111004	University of Guatemala	Idarraga A	1	1996	4	3	1996-4-3	Guatemala	GT	Petén	177,946,672	-898,800,209	San Jose
22	UWP:111383	University of Guatemala	Betancur J	1	1997	10	7	1997-10-7	Guatemala	GT	Petén	174,543,448	-896,237,693	Flores
23	UWP:113512	University of Guatemala	Vargas I	1	1998	9	12	1998-9-12	Guatemala	GT	Petén	177,783,778	9,084,424,953	San Andres
24	UWP:115089	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	177,795,212	-901,066,629	Andressan
25	UWP:115381	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	17,788,847	-900,136,721	San Anders
26	UWP:115382	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	173,098,632	-897,846,692	San Jose
27	UWP:11561	University of Guatemala	Vargas I	1	1979	1	12	1979-1-12	Guatemala	GT	Petén	175,995,834	-89,169,355	Melchor de Men
28	UWP:11571	University of Guatemala	Vargas I	1	1979	1	11	1979-1-11	Guatemala	GT	Petén	176,636,186	-909,257,567	San Andres
29	UWP:115953	University of Guatemala	Vargas I	1	1996	4	18	1996-4-18	Guatemala	GT	Petén	176,719,406	-892,924,027	Melchor de Men
30	UWP:11599	University of Guatemala	Vargas I	1	1979	1	11	1979-1-11	Guatemala	GT	Petén	172,446,118	-892,133,292	Mencos de Melc
31	UWP:11638	University of Guatemala	Mercado J	1	1978	3	17	1978-3-17	Guatemala	GT	Petén			

On **H2**, add this formula **=E2&"&F2&"&G2**. Select the **H2** right down corner, and a black cross will appear. While clicking on the cross, go down to the end of the column to fill **H**.

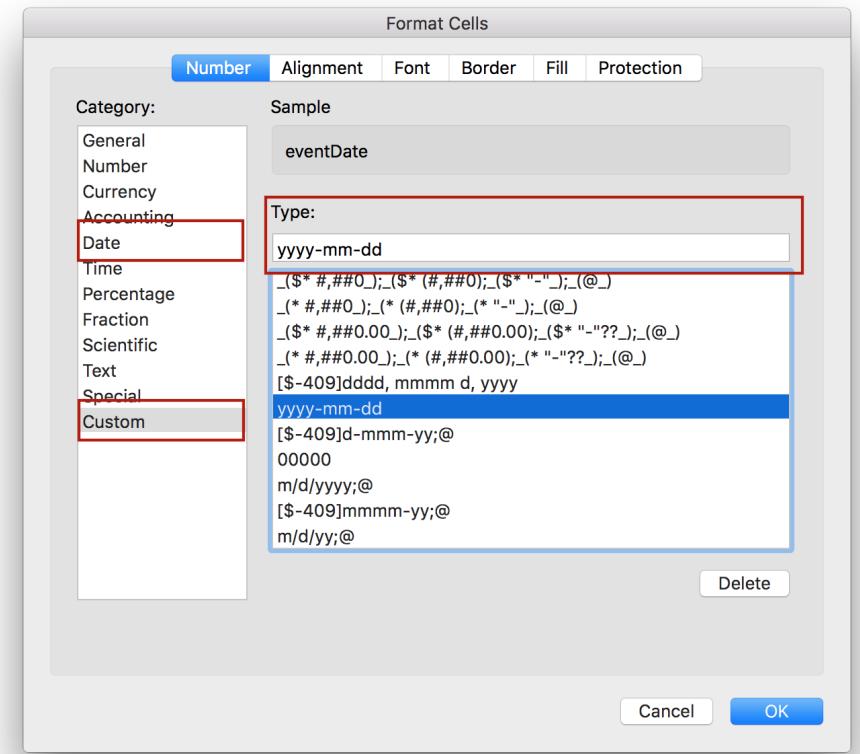
### 4. Split a column

To split a column, use the same mechanism than 1.2 (Text to Columns).

### 5. Convert date format

Open the Excel spreadsheet. Select the column you want to modify,

make a right click on it then choose **Format Cells**.



Look if your format exist on the **Date** category, if not select **Custom** Category. Confirm by clicking **OK**.

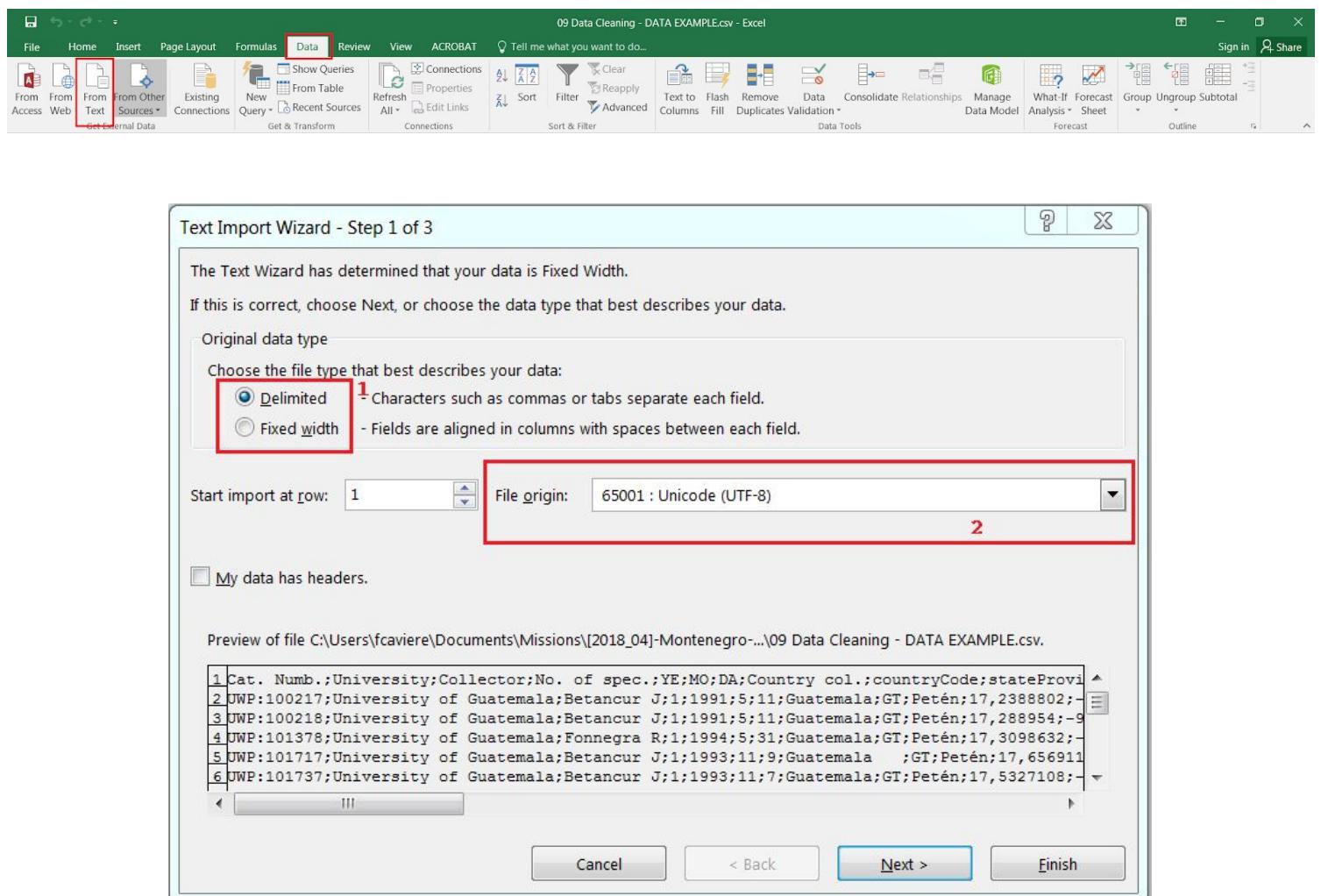
Screenshot of Microsoft Excel showing a data sheet named 'Test'. The data consists of 31 rows of information, mostly from the University of Guatemala. The columns include: A (Cat. Numb.), B (University), C (Collector), D (No. of spec.), E (YE), F (MO), G (DA), H (eventDate), I (Country col.), J (countryCode), K (stateProvince), L (lat), M (lon), and N (County). The 'eventDate' column contains dates like '1991-05-11', '1994-05-31', and '1997-04-18'. The 'Country col.' column shows 'Guatemala' for most entries. The 'County' column includes names like 'La Libertad', 'San Jose', 'Flores', and 'San Andres'. The 'lon' column shows coordinates such as '-906,602,972' and '890,173,641'. The 'County' column at the bottom right contains names like 'Mencos de Men' and 'Melchor de Men'.

## Windows instructions

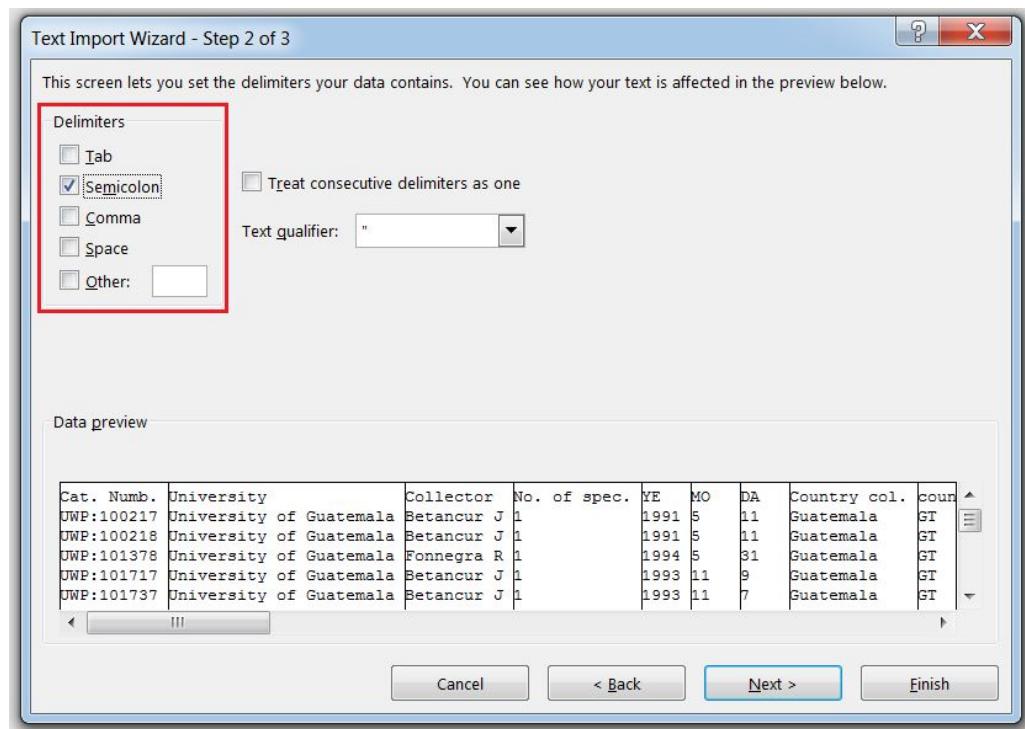
### 1. Open a text file

#### 1.1. Solution 1 : with Excel tools

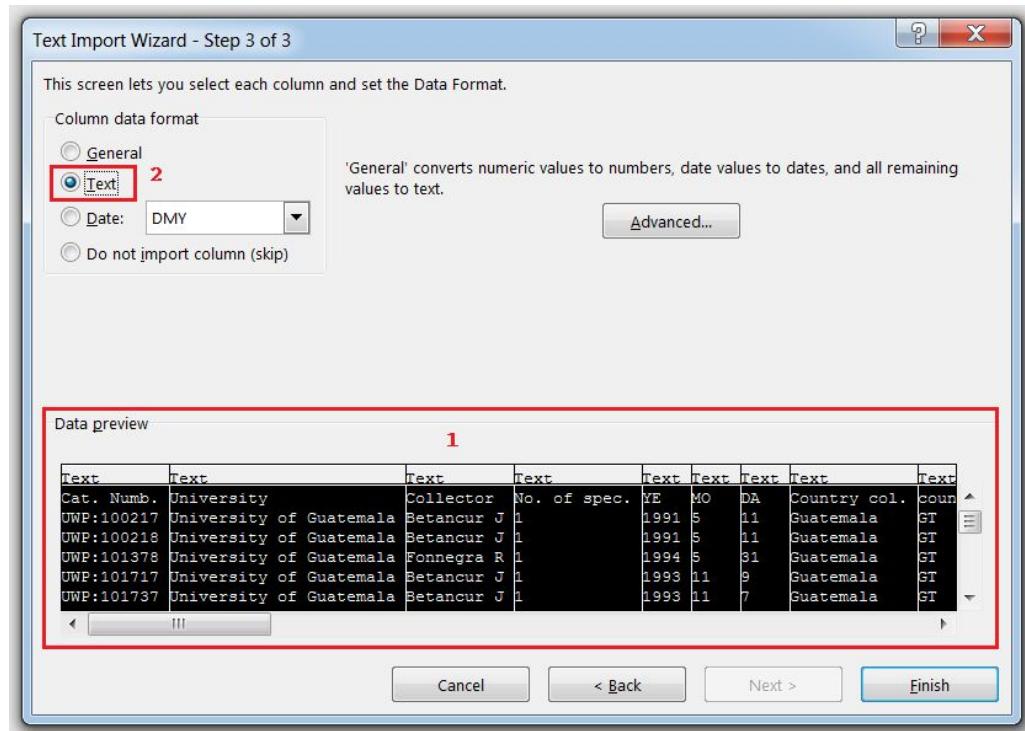
Open Excel. On the tab **Data**, then choose **From text**.



On the Text Import Wizard - Step 1 of 3, select **Delimited (1)**, and choose **Unicode (UTF-8) (2)** as File origin encoding then click **Next**



On the Text Import Wizard - Step 2 of 3, select the delimiter or create one then click **Next**

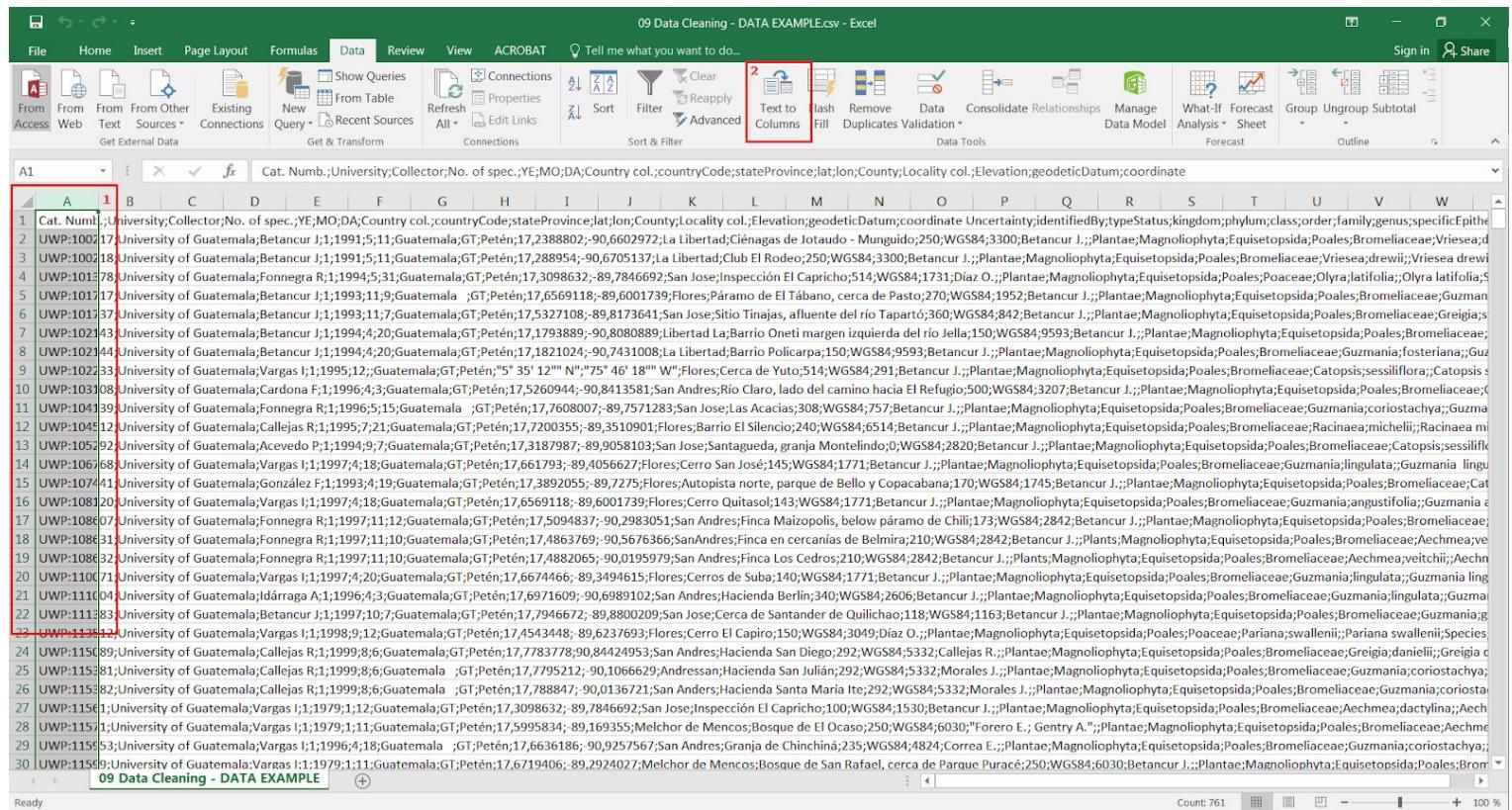


On the Text Import Wizard - Step 3 of 3, select all the columns (1) (by clicking on shift and sliding the cursor to the right) and put them as **Text** to avoid any format errors due to Excel.

On the Import Data last window, choose **Existing sheet** and click on **Ok**.

## 1.2. Solution 2 : after opening a txt or csv file on Excel

Double click on the TXT (.txt) or CSV file (.csv).



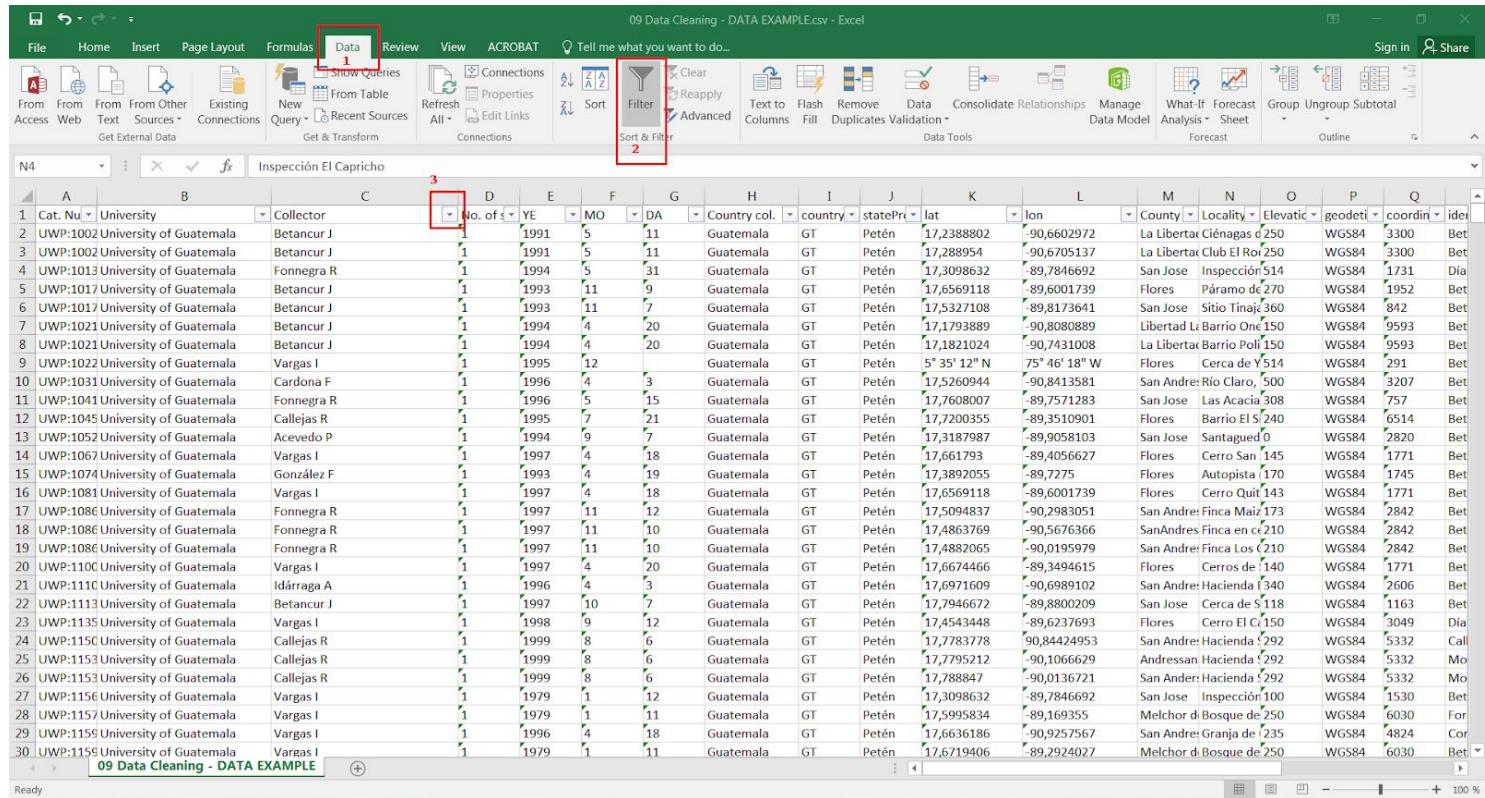
The screenshot shows an Excel spreadsheet titled '09 Data Cleaning - DATA EXAMPLE.csv - Excel'. The 'Data' tab is selected. In the 'Text to Columns' section of the ribbon, the 'Text to Columns' button is highlighted with a red box. The data in column A is selected, and the formula bar shows the path: 'Cat. Numb.;University;Collector;No. of spec.;YE;MO;DA;Country col.;countryCode;stateProvince;lat;lon;County;Locality col.;Elevation;geodeticDatum;coordinate'. The data in column A consists of 30 rows of text, each representing a record with various fields separated by semicolons.

Select the entire first column, then on the tab **Data**, choose **Text to Columns** and follow the **Import Text Wizard** (like solution 1.1).

## 2. Add a filter

Open the Excel spreadsheet.

On the tab **Data (1)**, choose **Filter (2)**. You can click on the small down arrow (3) of the column you want to filter.



09 Data Cleaning - DATA EXAMPLE.csv - Excel

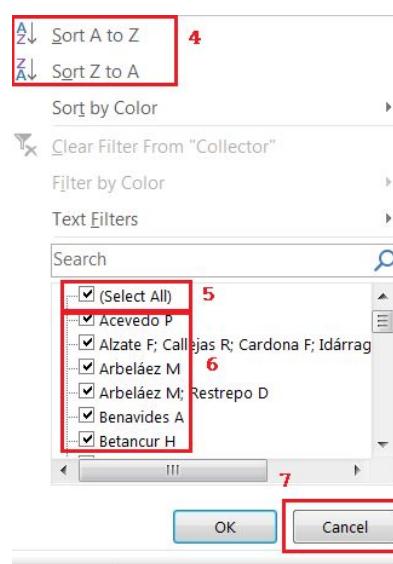
File Home Insert Page Layout Formulas **Data** Review View ACROBAT Tell me what you want to do...

From Web Text Sources Existing Connections New Query Get External Data Get & Transform Refresh All Connections Properties Edit Links Advanced Text to Columns Flash Fill Remove Duplicates Validation Consolidate Relationships Manage Data Model What-If Analysis Forecast Sheet Forecast Group Ungroup Subtotal Forecast Outline

N4 Inspección El Capricho

1	2	3	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	5
6	7	8	Cat. Nu.	University	Collector	No. of	YE	MO	DA	Country col.	country	statePri	lat	lon	County	Locality	Elevat	geodeti	coordin	idei
1	2	3	UWP:1002	University of Guatemala	Betancur J	1	1991	5	11	Guatemala	GT	Petén	17,2388802	-90,6602972	La Libertad	Ciénegas d 250	WGS84	3300	Bet	
2	3	4	UWP:1002	University of Guatemala	Betancur J	1	1991	5	31	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose	Inspección 514	WGS84	1731	Dia	
3	4	5	UWP:1013	University of Guatemala	Fonnegra R	1	1994	5	9	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores	Páramo d 270	WGS84	1952		
4	5	6	UWP:1017	University of Guatemala	Betancur J	1	1993	11	7	Guatemala	GT	Petén	17,5327108	-89,8173641	San Jose	Sitio Tinaj 360	WGS84	842	Bet	
5	6	7	UWP:1017	University of Guatemala	Betancur J	1	1993	11	20	Guatemala	GT	Petén	17,1793889	-90,8080889	Liberdad Le Barrio Ond 150	WGS84	9593	Bet		
6	7	8	UWP:1021	University of Guatemala	Betancur J	1	1994	4	20	Guatemala	GT	Petén	17,1821024	-90,7431008	La Libertad Barrio Poll 150	WGS84	9593	Bet		
7	8	9	UWP:1022	University of Guatemala	Vargas I	1	1995	12		Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores	Cerca de Y514	WGS84	291	Bet	
8	9	10	UWP:1031	University of Guatemala	Cardona F	1	1996	4	3	Guatemala	GT	Petén	17,5260944	-90,8413581	San Andre: Río Claro	500	WGS84	3207	Bet	
9	10	11	UWP:1041	University of Guatemala	Fonnegra R	1	1996	5	15	Guatemala	GT	Petén	17,7608007	-89,7571283	San Jose	Las Acacia 308	WGS84	757	Bet	
10	11	12	UWP:1045	University of Guatemala	Callejas R	1	1995	7	21	Guatemala	GT	Petén	17,7200355	-89,3510901	Flores	Barrio El S 240	WGS84	6514	Bet	
11	12	13	UWP:1052	University of Guatemala	Acevedo P	1	1994	9	7	Guatemala	GT	Petén	17,3187987	-89,9058103	San Jose	Santagued 0	WGS84	2820		
12	13	14	UWP:1067	University of Guatemala	Vargas I	1	1997	4	18	Guatemala	GT	Petén	17,661793	-89,4056627	Flores	Cerro San 145	WGS84	1771	Bet	
13	14	15	UWP:1074	University of Guatemala	González F	1	1993	4	19	Guatemala	GT	Petén	17,3892055	-89,72775	Flores	Autopista 170	WGS84	1745	Bet	
14	15	16	UWP:1081	University of Guatemala	Vargas I	1	1997	4	18	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores	Cerro Quil 143	WGS84	1771	Bet	
15	16	17	UWP:1086	University of Guatemala	Fonnegra R	1	1997	11	12	Guatemala	GT	Petén	17,5094837	-90,2983051	San Andre: Finca Mair 173	WGS84	2842	Bet		
16	17	18	UWP:1086	University of Guatemala	Fonnegra R	1	1997	11	10	Guatemala	GT	Petén	17,4863769	-90,5676366	SanAndres Finca en c 210	WGS84	2842	Bet		
17	18	19	UWP:1086	University of Guatemala	Fonnegra R	1	1997	11	10	Guatemala	GT	Petén	17,4882065	-90,0195979	San Andre: Finca Los 210	WGS84	2842	Bet		
18	19	20	UWP:1100	University of Guatemala	Vargas I	1	1997	4	20	Guatemala	GT	Petén	17,6674466	-89,3494615	Flores	Cerro de 140	WGS84	1771	Bet	
19	20	21	UWP:111C	University of Guatemala	Idárraga A	1	1996	4	3	Guatemala	GT	Petén	17,6971609	-90,6989102	San Andre: Hacienda 340	WGS84	2606	Bet		
20	21	22	UWP:1113	University of Guatemala	Betancur J	1	1997	10	7	Guatemala	GT	Petén	17,79446672	-89,8800209	San Jose	Cerca de S118	WGS84	1163	Bet	
21	22	23	UWP:1135	University of Guatemala	Vargas I	1	1998	9	12	Guatemala	GT	Petén	17,4543448	-89,6237693	Flores	Cerro El C 150	WGS84	3049	Dia	
22	23	24	UWP:115C	University of Guatemala	Callejas R	1	1999	8	6	Guatemala	GT	Petén	17,7783778	90,84424953	San Andre: Hacienda 292	WGS84	5332	Call		
23	24	25	UWP:1153	University of Guatemala	Callejas R	1	1999	8	6	Guatemala	GT	Petén	17,7795212	-90,1066629	Andressan Hacienda 292	WGS84	5332	Mo		
24	25	26	UWP:1153	University of Guatemala	Callejas R	1	1999	8	6	Guatemala	GT	Petén	17,788847	-90,0136721	San Andre: Hacienda 292	WGS84	5332	Mo		
25	26	27	UWP:1156	University of Guatemala	Vargas I	1	1979	1	12	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose	Inspección 100	WGS84	1530	Bet	
26	27	28	UWP:1157	University of Guatemala	Vargas I	1	1979	1	11	Guatemala	GT	Petén	17,5995834	-89,1693355	Melchor d Bosque de 250	WGS84	6030	For		
27	28	29	UWP:1159	University of Guatemala	Vargas I	1	1996	4	18	Guatemala	GT	Petén	17,6636186	-90,9257567	San Andre: Granja de 235	WGS84	4824	Cor		
28	29	30	UWP:1156	University of Guatemala	Vargas I	1	1979	1	11	Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor d Bosque de 250	WGS84	6030	Bet		

On the filter menu, you will be able to make **ascending or descending sorting (4)**, **select or unselect all filters (5)**, choose **specific data to filter (6)** and **clear your filters (7)**.

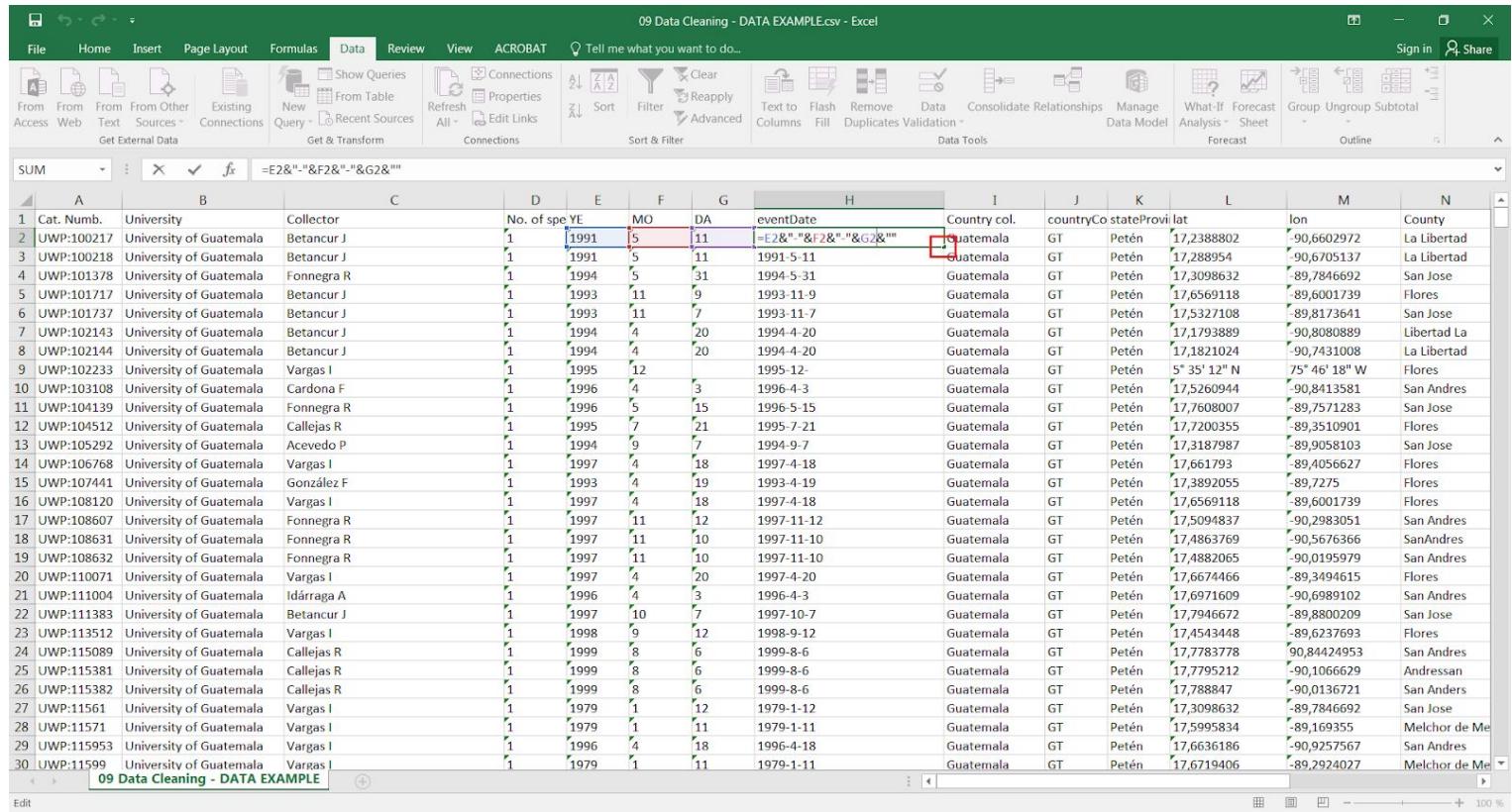


### 3. Merge columns

Open the Excel spreadsheet. The new column **eventDate** will be the result of the merging of column **YE** (column E), **MO** (column F) and **DA** (column G).

Create the **eventDate** on the right of **DA** (right click on the column then insert). The new column will be column H.

09 Data Cleaning - DATA EXAMPLE.csv - Excel



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Cat. Numb.	University	Collector	No. of spe	YE	MO	DA	eventDate	Country col.	countryCo	stateProv	lat	lon	County
2	UWP:100217	University of Guatemala	Betancur J	1	1991	5	11	=E2&"&F2&"&G2	Guatemala	GT	Petén	17,2388802	-90,6602972	La Libertad
3	UWP:100218	University of Guatemala	Betancur J	1	1991	5	11	1991-5-11	Guatemala	GT	Petén	17,288954	-90,6705137	La Libertad
4	UWP:101378	University of Guatemala	Fonnegra R	1	1994	5	31	1994-5-31	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose
5	UWP:101717	University of Guatemala	Betancur J	1	1993	11	9	1993-11-9	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores
6	UWP:101737	University of Guatemala	Betancur J	1	1993	11	7	1993-11-7	Guatemala	GT	Petén	17,5327108	-89,8173641	San Jose
7	UWP:102143	University of Guatemala	Betancur J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	17,1793889	-90,8080889	Liberadt La
8	UWP:102144	University of Guatemala	Betancur J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	17,1821024	-90,7431008	La Libertad
9	UWP:102233	University of Guatemala	Vargas I	1	1995	12		1995-12-	Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores
10	UWP:103108	University of Guatemala	Cardona F	1	1996	4	3	1996-4-3	Guatemala	GT	Petén	17,5260944	-90,8413581	San Andres
11	UWP:104139	University of Guatemala	Fonnegra R	1	1996	5	15	1996-5-15	Guatemala	GT	Petén	17,7608007	-89,7571283	San Jose
12	UWP:104512	University of Guatemala	Callejas R	1	1995	7	21	1995-7-21	Guatemala	GT	Petén	17,720355	-89,3510901	Flores
13	UWP:105292	University of Guatemala	Acevedo P	1	1994	9	7	1994-9-7	Guatemala	GT	Petén	17,3187987	-89,9058103	San Jose
14	UWP:106768	University of Guatemala	Vargas I	1	1997	4	18	1997-4-18	Guatemala	GT	Petén	17,661793	-89,4056627	Flores
15	UWP:107441	University of Guatemala	González F	1	1993	4	19	1993-4-19	Guatemala	GT	Petén	17,3892055	-89,7275	Flores
16	UWP:108120	University of Guatemala	Vargas I	1	1997	4	18	1997-4-18	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores
17	UWP:108607	University of Guatemala	Fonnegra R	1	1997	11	12	1997-11-12	Guatemala	GT	Petén	17,5094837	-90,2983051	San Andres
18	UWP:108631	University of Guatemala	Fonnegra R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	17,4863769	-90,5676366	SanAndres
19	UWP:108632	University of Guatemala	Fonnegra R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	17,4882065	-90,0195979	San Andres
20	UWP:110071	University of Guatemala	Vargas I	1	1997	4	20	1997-4-20	Guatemala	GT	Petén	17,6674466	-89,3494615	Flores
21	UWP:111004	University of Guatemala	Idárraga A	1	1996	4	3	1996-4-3	Guatemala	GT	Petén	17,6971609	-90,6989102	San Andres
22	UWP:111383	University of Guatemala	Betancur J	1	1997	10	7	1997-10-7	Guatemala	GT	Petén	17,7946672	-89,8800209	San Jose
23	UWP:113512	University of Guatemala	Vargas I	1	1998	9	12	1998-9-12	Guatemala	GT	Petén	17,4543448	-89,6237693	Flores
24	UWP:115089	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	17,7783778	-90,84424953	San Andres
25	UWP:115381	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	17,7795212	-90,1066629	Andressan
26	UWP:115382	University of Guatemala	Callejas R	1	1999	8	6	1999-8-6	Guatemala	GT	Petén	17,778847	-90,0136721	San Anders
27	UWP:11561	University of Guatemala	Vargas I	1	1979	1	12	1979-1-12	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose
28	UWP:11571	University of Guatemala	Vargas I	1	1979	1	11	1979-1-11	Guatemala	GT	Petén	17,5995834	-89,169355	Melchor de Me
29	UWP:115953	University of Guatemala	Vargas I	1	1996	4	18	1996-4-18	Guatemala	GT	Petén	17,6636186	-90,9257567	San Andres
30	UWP:11599	University of Guatemala	Vargas I	1	1979	1	11	1979-1-11	Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor de Me

On **H2**, add this formula **=E2&"&F2&"&G2**.

Select the **H2** right down corner, and a black cross will appear.

While clicking on the cross, go down to the end of the column to fill H.

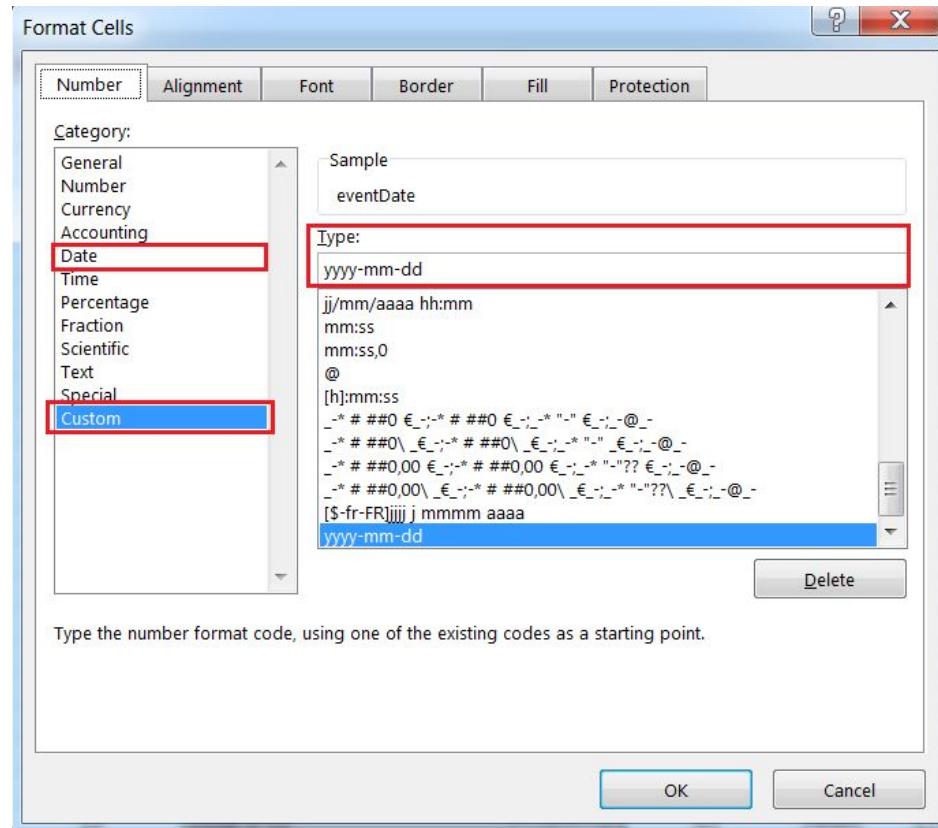
### 4. Split a column

To split a column, use the same mechanism than 1.2 (Text to Columns).

### 5. Convert date format

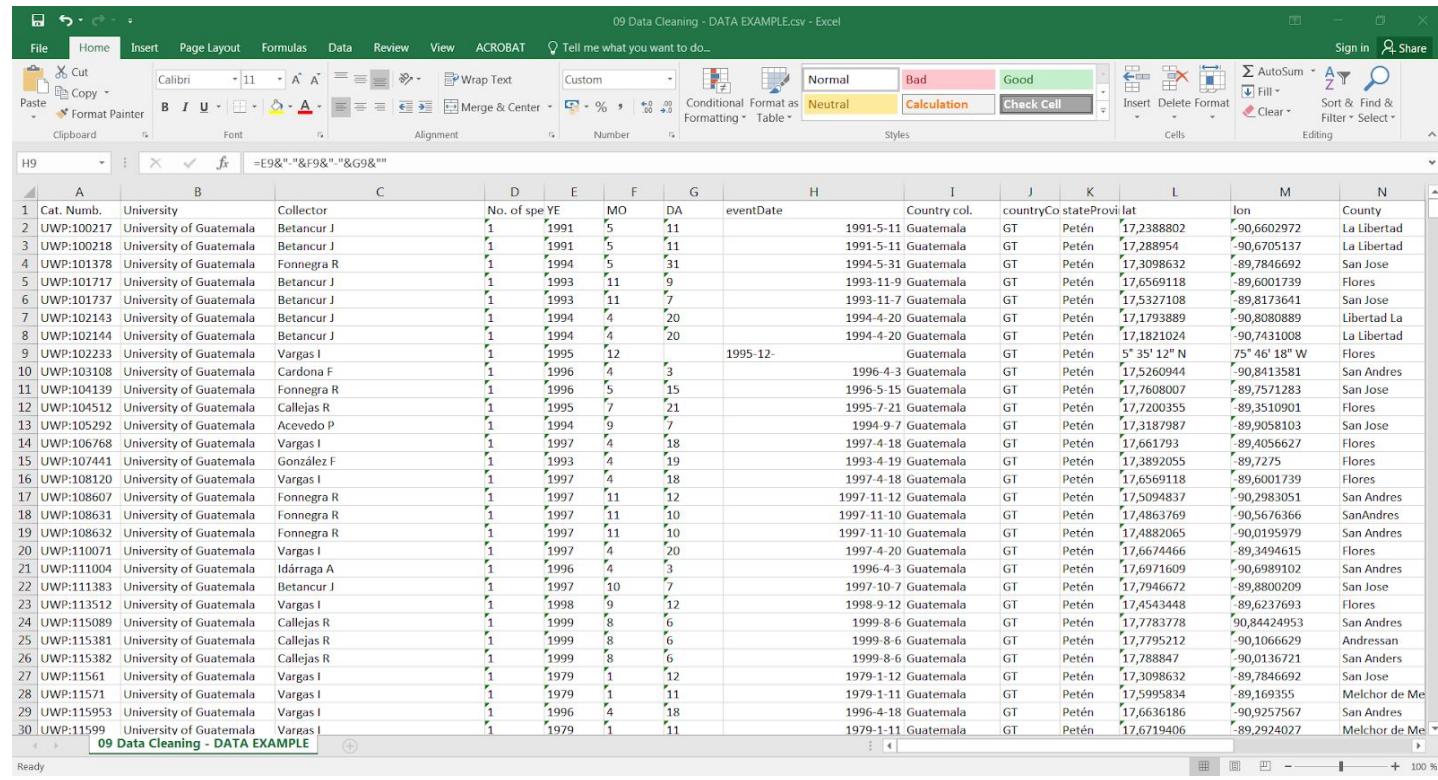
Open the Excel spreadsheet.

Select the column you want to modify, make a right click on it then choose **Format Cells**.



Look if your format exists on the **Date** category, if not select the **Custom** Category. Confirm by clicking **OK**.

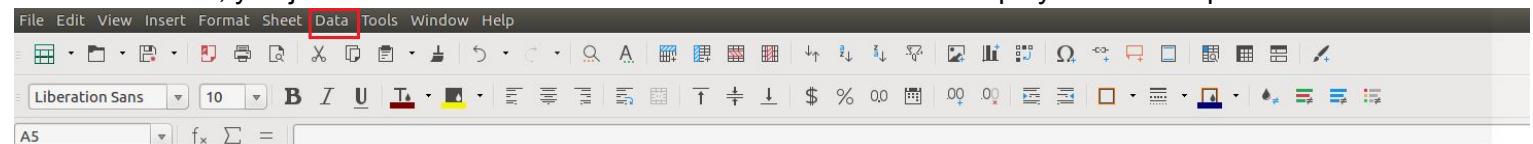
09 Data Cleaning - DATA EXAMPLE.csv - Excel



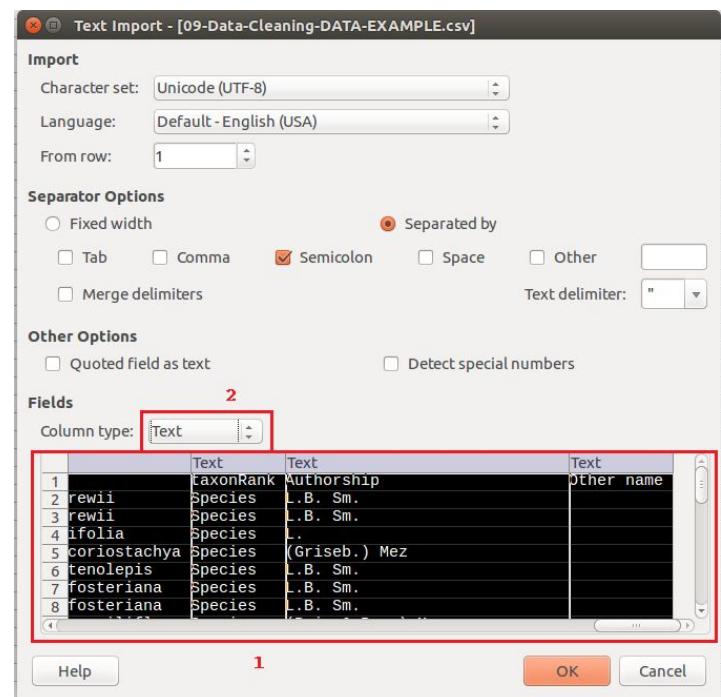
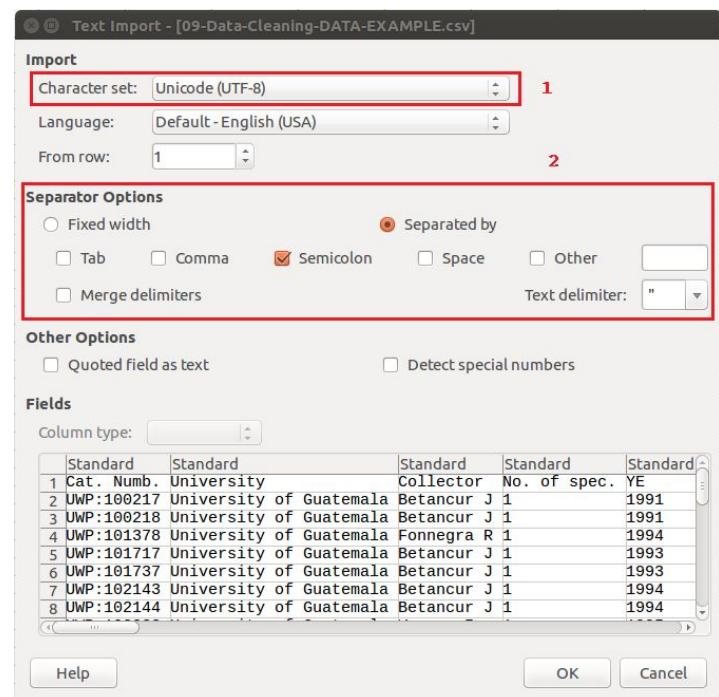
## Linux instructions for LibreOffice

### 1. Open a text file

With LibreOffice, you just have to double-click on a text or csv file for it to display the Text Import Wizard



Once you have opened a text file, click on Data > Text to column to display the LibreOffice Text Import Wizard



Sheet 1 of 1	09-Data-Cleaning-Data-Example	Default	T	Sum	0
1. Cat. Numb., University, Collector, No. of spec., YE MO, DA, Country, col., country code, state/province, lat/lon, Country, Locality, col., Elevation, geodetic datum, coordinate uncertainty, identified by type, status, kingdom, phylum, class, order, family, genus, specific epithet, infraspecific epithet, full name, taxon rank, auth.					
2. University, Collector, No. of spec., YE MO, DA, Country, col., country code, state/province, lat/lon, Country, Locality, col., Elevation, geodetic datum, coordinate uncertainty, identified by type, status, kingdom, phylum, class, order, family, genus, specific epithet, infraspecific epithet, full name, taxon rank, auth.					
3. UMP, 100218, University of Guatemala, Belenjur, J, 1/1991, 5.11, Guatemala, GT-Peten, 17.288954, 90.6705137, La Libertad Club El Rodeo, 250, WGS84, 3300, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Vriesea, dresleri, Vriesea dresleri, Species; L.B. Sm.;					
4. UMP, 101378, University of Guatemala, Forreigna, R, 1/1994, 5.31, Guatemala, GT-Peten, 17.309832, -89.748692, San Jose, Inspeccion El Capricho, 514, WGS84, 1731, Dzir, O., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Olyra latifolia, Olyra latifolia, Species; L.					
5. UMP, 101717, University of Guatemala, Belenjur, J, 1/1993, 11.9, Guatemala, GT-Peten, 17.309811, -89.600139, Flores, Parque El Abano, cerca de Pato, 270, WGS84, 1952, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Greigia, stenolepis, Greigia stenolepis, Species; L.B. Sm.;					
6. UMP, 101737, University of Guatemala, Belenjur, J, 1/1993, 11.7, Guatemala, GT-Peten, 17.527107, -89.817364, San Jose, Sitio Tinajas, affluente del río Tapatio, 360, WGS84, 842, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Greigia, stenolepis, Greigia stenolepis, Species; L.B. Sm.;					
7. UMP, 102143, University of Guatemala, Belenjur, J, 1/1994, 4.20, Guatemala, GT-Peten, 17.179389, -90.800889, Libertad La Barrio Oreti, margen izquierda del río Jelta, 150, WGS84, 9593, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, forsteriana, Guzmania forsteriana, Species; L.					
8. UMP, 102144, University of Guatemala, Belenjur, J, 1/1994, 4.20, Guatemala, GT-Peten, 17.182104, -90.741008, La Libertad, Barrio Policarpa, 99, WGS84, 9935, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, forsteriana, Guzmania forsteriana, Species; L.B. Sm.;					
9. UMP, 102233, University of Guatemala, Vergas, I, 1/1995, 12.2, Guatemala, GT-Peten, 5° 35' 12", -75° 46' 18", Flores, Cerro de Yuto, 514, WGS84, 291, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Catopsis, sessiliflora, Catopsis sessiliflora, Species; Ruiz & Pay, Mez.					
10. UMP, 103106, University of Guatemala, Vergas, I, 1/1996, 4.3, Guatemala, GT-Peten, 17.526044, -90.841359, San Andres, Rio Claro, lado del camino hacia el Refugio, 500, WGS84, 320, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; L.					
11. UMP, 104139, University of Guatemala, Forreigna, R, 1/1996, 5.15, Guatemala, GT-Peten, 17.606793, -89.712839, San Jose, Las Acacias, 308, WGS84, 757, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, corostachya, Guzmania corostachya, Species (Grech) Mez.					
12. UMP, 104512, University of Guatemala, Calejas, R, 1/1995, 7.21, Guatemala, GT-Peten, 17.700395, -89.8017364, Flores Barrio El Silencio, 210, WGS84, 854, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Racinaea, micheli, Racinaea micheli, Species (Mez) A.M. Spencer & L.B. Sm.					
13. UMP, 105392, University of Guatemala, Acevedo, P, 1/1994, 9, Guatemala, GT-Peten, 17.318797, -89.905810, San Jose, Jose-Santaquedua, grama Montelindo, 0, WGS84, 320, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Catopsis, sessiliflora, Catopsis sessiliflora, Species; Ruiz & Pay, Mez.					
14. UMP, 107441, University of Guatemala, Vergas, I, 1/1997, 4.18, Guatemala, GT-Peten, 17.661167, -89.740517, San Jose, Cerro San Jose, 14, WGS84, 1771, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species (L.) Mez.					
15. UMP, 107442, University of Guatemala, Vergas, I, 1/1997, 4.18, Guatemala, GT-Peten, 17.680255, -89.7755, Flores, Autopista norte, cerca de Pueblo El Copacabana, 170, WGS84, 1745, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Catopsis, jutans, Catopsis jutans, Species; (Sw.) C. Chr.					
16. UMP, 108667, University of Guatemala, Forreigna, R, 1/1997, 11.12, Guatemala, GT-Peten, 17.504937, -90.293051, San Andres, Ficus Maculata, debajo paramo de Chimal, 173, WGS84, 2842, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, angustifolia, Guzmania angustifolia, Species; Baker.					
17. UMP, 108667, University of Guatemala, Forreigna, R, 1/1997, 11.12, Guatemala, GT-Peten, 17.504937, -90.293051, San Andres, Ficus Maculata, debajo paramo de Chimal, 173, WGS84, 2842, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, vestita, Achmea vestita, Species; Baker.					
18. UMP, 108631, University of Guatemala, Forreigna, R, 1/1997, 11.10, Guatemala, GT-Peten, 17.486674, -90.563366, San Andres, Finch en cercanias de Belmira, 210, WGS84, 2842, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; L.					
19. UMP, 108632, University of Guatemala, Forreigna, R, 1/1997, 11.10, Guatemala, GT-Peten, 17.482063, -90.019597, San Andres, Finch en cercanias de Belmira, 210, WGS84, 2842, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, vestita, Achmea vestita, Species; Baker.					
20. UMP, 107071, University of Guatemala, Vergas, I, 1/1997, 4.20, Guatemala, GT-Peten, 17.667446, -89.349455, Flores, Cerro de Suka, 140, WGS84, 1771, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; (L.) Mez.					
21. UMP, 111004, University of Guatemala, Idiara, A, 1/1996, 4.3, Guatemala, GT-Peten, 17.691779, -89.770197, San Andres, Hacienda Belen, 210, WGS84, 6260, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species (L.) Mez.					
22. UMP, 111083, University of Guatemala, Belenjur, J, 1/1997, 10.17, Guatemala, GT-Peten, 17.704672, -89.880029, San Jose, Cerro de San Lander de Quil, 110, WGS84, 1163, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, graminifolia, Guzmania graminifolia, Species; (A. Mez) A. Mez.					
23. UMP, 113512, University of Guatemala, Vergas, I, 1/1996, 9.12, Guatemala, GT-Peten, 17.454344, -89.623793, Flores, Cerro El Pion, 150, WGS84, 3049, Diaz, O., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Parvalia, swalleni, Parvalia swalleni, Species; (Griseb.) R. Foster.					
24. UMP, 115089, University of Guatemala, Calejas, R, 1/1999, 8.6, Guatemala, GT-Peten, 17.773873, 90.844295, San Andres, Hacienda San Diego, 292, WGS84, 5332, Callas, R., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, daniellii, Guzmania daniellii, Species; L.B. Sm.;					
25. UMP, 115181, University of Guatemala, Calejas, R, 1/1999, 8.6, Guatemala, GT-Peten, 17.775512, -90.106629, Andres, Hacienda San Julian, 292, WGS84, 5332, Morales, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, corostachya, Guzmania corostachya, Species; (Griseb.) Mez.					
26. UMP, 115282, University of Guatemala, Calejas, R, 1/1999, 8.6, Guatemala, GT-Peten, 17.780484, 90.013672, San Andres, Hacienda Santa Maria Ite, 292, WGS84, 5332, Morales, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, corostachya, Guzmania corostachya, Species (Griseb.) Mez.					
27. UMP, 115611, University of Guatemala, Vergas, I, 1/1997, 11.12, Guatemala, GT-Peten, 17.599853, -89.169355, Belchior de Meros Bosques de El Oce, 250, WGS84, 6300, Belenjur, J., Forrest, E., Gentry, A., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, dacyllina, Achmea dacyllina, Species; Baker.					
28. UMP, 115711, University of Guatemala, Vergas, I, 1/1997, 11.12, Guatemala, GT-Peten, 17.599853, -89.169355, Belchior de Meros Bosques de El Oce, 250, WGS84, 6300, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, dacyllina, Achmea dacyllina, Species; (Griseb.) Mez.					
29. UMP, 115953, University of Guatemala, Vergas, I, 1/1996, 4.18, Guatemala, GT-Peten, 17.663818, -90.925797, San Andres, Grana de Chinchona, 235, WGS84, 4824, Conca, E., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, corostachya, Guzmania corostachya, Species; (Griseb.) Mez.					
30. UMP, 116003, University of Guatemala, Vergas, I, 1/1997, 11.12, Guatemala, GT-Peten, 17.663818, -90.925797, San Andres, Bosques de San Andres, Cerro de Bosques de San Andres, 250, WGS84, 6300, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; L.					
31. UMP, 116023, University of Guatemala, Vergas, I, 1/1996, 4.18, Guatemala, GT-Peten, 17.663818, -90.925797, San Andres, Bosques de San Andres, Cerro de Bosques de San Andres, 250, WGS84, 6300, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; L.					
32. UMP, 116023, University of Guatemala, Vergas, I, 1/1996, 4.18, Guatemala, GT-Peten, 17.663818, -90.925797, San Andres, Bosques de San Andres, Cerro de Bosques de San Andres, 250, WGS84, 6300, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, contracta, Achmea contracta, Species; (Mez) Schult. I Baker.					
33. UMP, 116524, University of Guatemala, Vergas, I, 1/1998, 6, Guatemala, GT-Peten, 17.25° 11' N, 89° 16' 18" W, Flores, Cerro de Los Almendros, 210, WGS84, 1507, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, contracta, Achmea contracta, Species; (Mez) Schult. I Baker.					
34. UMP, 116525, University of Guatemala, Vergas, I, 1/1998, 6, Guatemala, GT-Peten, 17.25° 11' N, 89° 16' 18" W, Flores, Cerro de Los Almendros, 210, WGS84, 1507, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, contracta, Achmea contracta, Species; (Mez) Schult. I Baker.					
35. UMP, 116539, University of Guatemala, Calejas, R, 1/1999, 10, Guatemala, GT-Peten, 17.7837, 80.94424952, San Andres, Hacienda San Diego, 30, WGS84, 5723, Idiara, A., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Lasiocarpa, songoroides, Lasiocarpa songoroides, Species; (Desv.) Ham. Hitchc.					
36. UMP, 117325, University of Guatemala, Vergas, I, 1/1997, 9.13, Guatemala, GT-Peten, 17.6719406, -89.292402, Mechor de Menos, De Fomeque a Chingaza, 400, WGS84, 2056, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; (L.) Mez.					
37. UMP, 117538, University of Guatemala, Forreigna, R, 1/1998, 9.27, Guatemala, GT-Peten, 17.666949, -89.266549, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, servitensis, Achmea servitensis, Species; Andrieu.					
38. UMP, 117611, University of Guatemala, Forreigna, R, 1/1999, 10.20, Guatemala, GT-Peten, 17.216042, -90.026877, San Andres, Roadside in the city, 170, WGS84, 2918, Davids, G., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Lasiocarpa, procera, Lasiocarpa procera, Species; (Hack.) Hitchc.					
39. UMP, 117612, University of Guatemala, Calejas, R, 1/1999, 10.20, Guatemala, GT-Peten, 17.237362, -90.026877, San Andres, 5; of Jardin in S of department, 170, WGS84, 2918, Davids, G., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Lasiocarpa, procera, Lasiocarpa procera, Species; (Hack.) Hitchc.					
40. UMP, 117620, University of Guatemala, Calejas, R, 1/1999, 10.20, Guatemala, GT-Peten, 17.237362, -90.026877, San Andres, 5; of Jardin in S of department, 170, WGS84, 2918, Davids, G., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, Lasiocarpa, procera, Lasiocarpa procera, Species; (Hack.) Hitchc.					
41. UMP, 119070, University of Guatemala, Elba, P, 1/1993, 7.22, Guatemala, GT-Peten, 17.746431, -89.155414, San Andres, Hacienda La Playa Larga, 500, WGS84, 7737, Fernandez, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Cyperaceae, Echinochla, elegans, Echinochla elegans, Species; (Kunth) R. Schum.					
42. UMP, 119866, University of Guatemala, Renteria, J, 1980, 6.18, Guatemala, GT-Peten, 17.738577, -89.008889, La Libertad, Barrio Ometepec, 110, WGS84, 5593, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Poaceae, pubescens, Achmea pubescens, Achmea pubescens, Species; (L.) Mez.					
43. UMP, 119877, University of Guatemala, Renteria, J, 1980, 6.19, Guatemala, GT-Peten, 17.738577, -89.008889, La Libertad, Barrio Ometepec, 110, WGS84, 5593, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Cyperaceae, Echinochla, elegans, Echinochla elegans, Species; (Kunth) R. Schum.					
44. UMP, 121010, University of Guatemala, Vergas, I, 1998, 8.24, Guatemala, GT-Peten, 17.289954, -89.705857, San Andres, El Manicomio, 110, WGS84, 741, Verga, P., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Catopsis, sessiliflora, Catopsis sessiliflora, Species; (Ruiz & Pay) Mez.					
45. UMP, 121274, University of Guatemala, Velasquez, P, 1/1997, 12.29, Guatemala, GT-Peten, 17.318789, -89.007895, San Jose, Jose-Santaquedua, grama Montelindo, 110, WGS84, 1260, Velasquez, C., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, ingulata, Guzmania ingulata, Species; (L.) Mez.					
46. UMP, 121274, University of Guatemala, Velasquez, P, 1/1999, 10.17, Guatemala, GT-Peten, 17.540246, -89.008581, San Andres, Carrereta a San Martin de Pajon, 230, WGS84, 263, Patinga, P., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Greigia, daniellii, Greigia daniellii, Species; L. Sm.;					
47. UMP, 121274, University of Guatemala, Velasquez, P, 1/1999, 10.17, Guatemala, GT-Peten, 17.540246, -89.008581, San Andres, Carrereta a San Martin de Pajon, 230, WGS84, 263, Patinga, P., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Greigia, daniellii, Greigia daniellii, Species; L. Sm.;					
48. UMP, 122203, University of Guatemala, Benavides, A, 1/1997, 6, Guatemala, GT-Peten, 17.470047, -89.014003, San Andres, Finch, cerca de Barrio Ometepec, 110, WGS84, 5593, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, confusa, Guzmania confusa, Species; (Griseb.) Mez.					
49. UMP, 122205, University of Guatemala, Vergas, I, 1/2000, 5.24, Guatemala, GT-Peten, 17.268773, -89.440135, Flores, Arroyo Kukatamaj, cerca de Ubina, 120, WGS84, 1770, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Guzmania, confusa, Guzmania confusa, Species; Andrieu.					
50. UMP, 122471, University of Guatemala, Vergas, P, 1/2000, 5.23, Guatemala, GT-Peten, 17.268773, -89.440135, Flores, Arroyo Kukatamaj, cerca de Ubina, 120, WGS84, 1770, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, servitensis, Achmea servitensis, Species; Andrieu.					
51. UMP, 122471, University of Guatemala, Vergas, I, 1/2000, 5.23, Guatemala, GT-Peten, 17.268773, -89.440135, Flores, Arroyo Kukatamaj, cerca de Ubina, 120, WGS84, 1770, Belenjur, J., Plantae, Magnoliophyta, Equisetopsida, Poales, Bromeliaceae, Achmea, servitensis, Achmea servitensis, Species; Andrieu.					

## 2. Add a filter

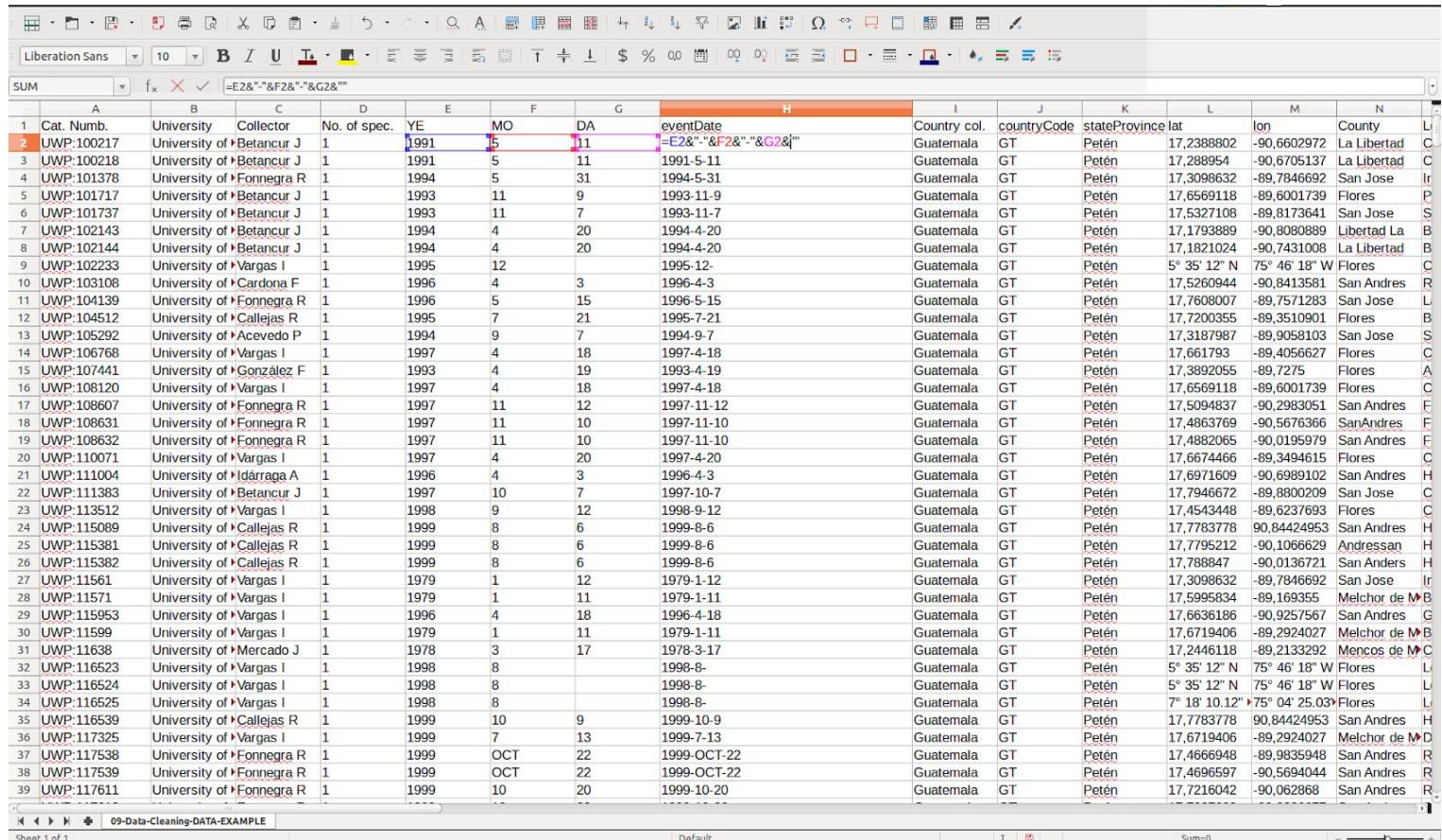
The filter tool (AutoFilter) is directly accessible on the main (and only) page of LibreOffice:

The screenshot shows a LibreOffice Calc spreadsheet with a data cleaning dialog box open. The dialog box contains a list of names with checkboxes for filtering: Acevedo P, Alzate F; Callejas R, Arbeláez M, Arbeláez M; Restrepo, and Benavides A. Below the list are buttons for 'OK' and 'Cancel'. To the left of the dialog box is a sidebar with sorting and filtering options: 'Sort Ascending', 'Sort Descending', 'Top 10', 'Empty', 'Not Empty', and 'Standard Filter...'. The main spreadsheet table has columns for Cat. Num., University, Collector, No. of specimens, NE, MO, DA, Country, countryCode, stateProvince, lat, lon, County, Locality, Elevation, and geographicData. The data includes various entries for different universities, collectors, and specimen details.

### 3. Merge columns

Open the Excel spreadsheet. The new column **eventDate** will be the result of the merging of column **YE** (column E), **MO** (column F) and **DA** (column G).

Create the **eventDate** on the right of **DA** (right click on the column then insert). The new column will be column H.



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Cat. Numb.	University	Collector	No. of spec.	YE	MO	DA	eventDate	Country col.	countryCode	stateProvince	lat	lon	County	U																								
UWP:100217	University of Betancur J	1	1991	15	11		=E2&"&F2&"&G2&""	Guatemala	GT	Petén	17,2388802	-90,6602972	La Libertad	C																								
UWP:100218	University of Betancur J	1	1991	5	11	1991-5-11		Guatemala	GT	Petén	17,288954	-90,6705137	La Libertad	C																								
UWP:101378	University of Fonnegra R	1	1994	5	31	1994-5-31		Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose	IR																								
UWP:101717	University of Betancur J	1	1993	11	9	1993-11-9		Guatemala	GT	Petén	17,6569118	-89,6001739	Flores	P																								
UWP:101737	University of Betancur J	1	1993	11	7	1993-11-7		Guatemala	GT	Petén	17,5327108	-89,8173641	San Jose	S																								
UWP:102143	University of Betancur J	1	1994	4	20	1994-4-20		Guatemala	GT	Petén	17,1793889	-90,8080889	Libertad La	B																								
UWP:102144	University of Betancur J	1	1994	4	20	1994-4-20		Guatemala	GT	Petén	17,1821024	-90,7431008	La Libertad	B																								
UWP:102233	University of Vargas I	1	1995	12		1995-12-		Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores	C																								
UWP:103108	University of Cardona F	1	1996	4	3	1996-4-3		Guatemala	GT	Petén	17,5260944	-90,8413581	San Andres	R																								
UWP:104139	University of Fonnegra R	1	1996	5	15	1996-5-15		Guatemala	GT	Petén	17,7608007	-89,7571283	San Jose	L																								
UWP:104512	University of Callejas R	1	1995	7	21	1995-7-21		Guatemala	GT	Petén	17,7200355	-89,3510901	Flores	B																								
UWP:105292	University of Acevedo P	1	1994	9	7	1994-9-7		Guatemala	GT	Petén	17,3187987	-89,9058103	San Jose	S																								
UWP:106768	University of Vargas I	1	1997	4	18	1997-4-18		Guatemala	GT	Petén	17,661793	-89,4056627	Flores	C																								
UWP:107441	University of González F	1	1993	4	19	1993-4-19		Guatemala	GT	Petén	17,3892055	-89,7275	Flores	A																								
UWP:108120	University of Vargas I	1	1997	4	18	1997-4-18		Guatemala	GT	Petén	17,6569118	-89,6001739	Flores	C																								
UWP:108607	University of Fonnegra R	1	1997	11	12	1997-11-12		Guatemala	GT	Petén	17,5094837	-90,2983051	San Andres	F																								
UWP:108631	University of Fonnegra R	1	1997	11	10	1997-11-10		Guatemala	GT	Petén	17,4863769	-90,5673636	San Andres	F																								
UWP:108632	University of Fonnegra R	1	1997	11	10	1997-11-10		Guatemala	GT	Petén	17,4882065	-90,0195979	San Andres	F																								
UWP:110071	University of Vargas I	1	1997	4	20	1997-4-20		Guatemala	GT	Petén	17,6674466	-89,3494615	Flores	C																								
UWP:111004	University of Idarraga A	1	1996	4	3	1996-4-3		Guatemala	GT	Petén	17,6971609	-90,6989102	San Andres	H																								
UWP:111383	University of Betancur J	1	1997	10	7	1997-10-7		Guatemala	GT	Petén	17,7946672	-89,8800209	San Jose	C																								
UWP:113512	University of Vargas I	1	1998	9	12	1998-9-12		Guatemala	GT	Petén	17,4543448	-89,6237693	Flores	C																								
UWP:115089	University of Callejas R	1	1999	8	6	1999-8-6		Guatemala	GT	Petén	17,7783778	-90,84424953	San Andres	H																								
UWP:115381	University of Callejas R	1	1999	8	6	1999-8-6		Guatemala	GT	Petén	17,7795212	-90,1066629	Andressan	H																								
UWP:115382	University of Callejas R	1	1999	8	6	1999-8-6		Guatemala	GT	Petén	17,788847	-90,0136721	San Anders	H																								
UWP:11561	University of Vargas I	1	1979	1	12	1979-1-12		Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose	IR																								
UWP:11571	University of Vargas I	1	1979	1	11	1979-1-11		Guatemala	GT	Petén	17,5995834	-89,169355	Melchor de M B																									
UWP:115953	University of Vargas I	1	1996	4	18	1996-4-18		Guatemala	GT	Petén	17,6636186	-90,9257567	San Andres	G																								
UWP:11599	University of Vargas I	1	1979	1	11	1979-1-11		Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor de M B																									
UWP:11638	University of Mercado J	1	1978	3	17	1978-3-17		Guatemala	GT	Petén	17,2446118	-89,2133292	Mencos de M C																									
UWP:116523	University of Vargas I	1	1998	8		1998-8-		Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores	L																								
UWP:116524	University of Vargas I	1	1998	8		1998-8-		Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores	L																								
UWP:116525	University of Vargas I	1	1998	8		1998-8-		Guatemala	GT	Petén	7° 18' 10.12"	75° 04' 25.03"	Flores	L																								
UWP:116539	University of Callejas R	1	1999	10	9	1999-10-9		Guatemala	GT	Petén	17,7783778	90,84424953	San Andres	H																								
UWP:117325	University of Vargas I	1	1999	7	13	1999-7-13		Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor de M B																									
UWP:117538	University of Fonnegra R	1	1999	OCT	22	1999-OCT-22		Guatemala	GT	Petén	17,4666948	-89,9835948	San Andres	R																								
UWP:117539	University of Fonnegra R	1	1999	OCT	22	1999-OCT-22		Guatemala	GT	Petén	17,4696597	-90,5694044	San Andres	R																								
UWP:117611	University of Fonnegra R	1	1999	10	20	1999-10-20		Guatemala	GT	Petén	17,7216042	-90,062868	San Andres	R																								

On H2, add this formula =E2&"&F2&"&G2&"".

Select the H2 right down corner, and a black cross will appear.

While clicking on the cross, go down to the end of the column to fill H

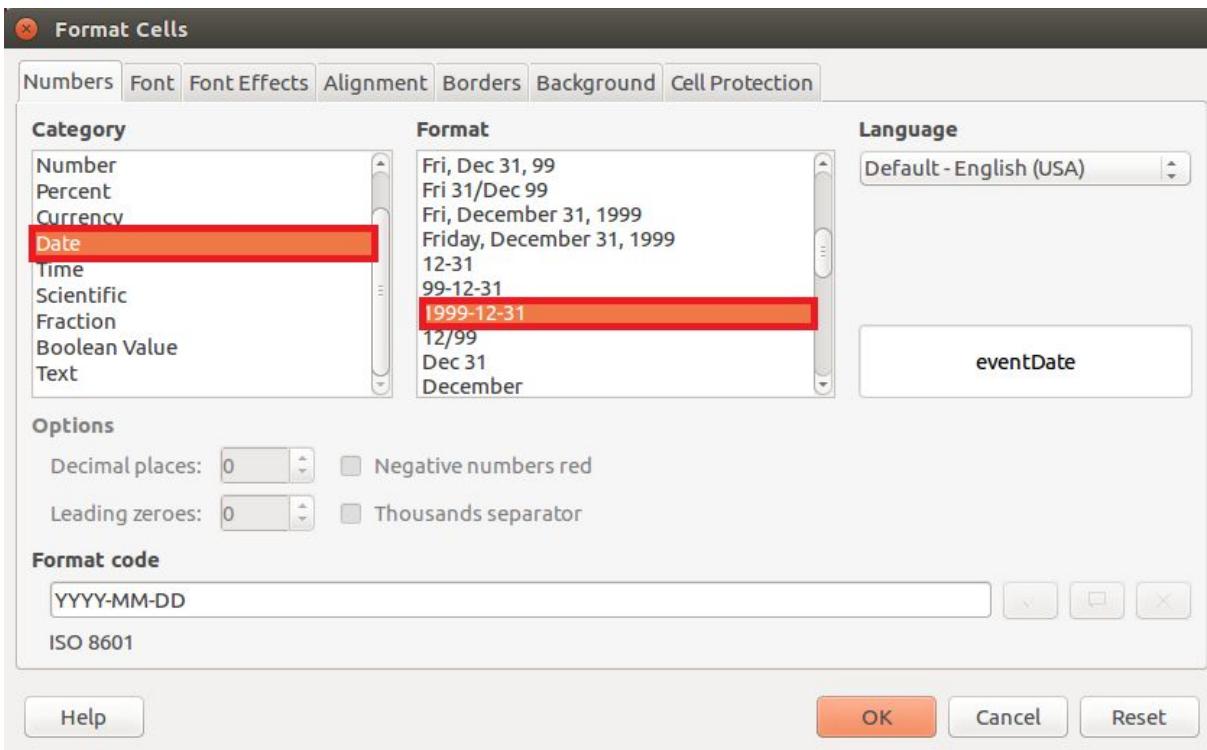
### 4. Split a column

To split a column, use the same mechanism than 1. (Text to Columns).

### 5. Convert date format

Open the Excel spreadsheet.

Select the column you want to modify, make a right click on it then choose **Format Cells**.



eventDate														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Cat. Numb.	University	Collector	No. of spec.	YE	MO	DA	eventDate	Country col.	countryCode	stateProvince	lat	lon	County
2	UWP:100217	University of Betancur	J	1	1991	5	11	1991-5-11	Guatemala	GT	Petén	17,2388802	-90,6602972	La Libertad
3	UWP:100218	University of Betancur	J	1	1991	5	11	1991-5-11	Guatemala	GT	Petén	17,288954	-90,6705137	La Libertad
4	UWP:101376	University of Fonnegra	R	1	1994	5	31	1994-5-31	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose
5	UWP:101717	University of Betancur	J	1	1993	11	9	1993-11-9	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores
6	UWP:101737	University of Betancur	J	1	1993	11	7	1993-11-7	Guatemala	GT	Petén	17,5327108	-89,8173641	San Jose
7	UWP:102143	University of Betancur	J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	17,1793889	-90,8080889	Libertad La
8	UWP:102144	University of Betancur	J	1	1994	4	20	1994-4-20	Guatemala	GT	Petén	17,1821024	-90,7431008	La Libertad
9	UWP:102233	University of Vargas I	1	1995	12			1995-12-	Guatemala	GT	Petén	5° 38' 12" N	75° 46' 18" W	Flores
10	UWP:103108	University of Cardona F	1	1996	4	3		1996-4-3	Guatemala	GT	Petén	17,5260944	-90,8413581	San Andres
11	UWP:104139	University of Fonnegra	R	1	1996	5	15	1996-5-15	Guatemala	GT	Petén	17,7608007	-89,7571283	San Jose
12	UWP:104512	University of Callejas R	1	1995	7	21		1995-7-21	Guatemala	GT	Petén	17,7200355	-89,3510901	Flores
13	UWP:105292	University of Acevedo P	1	1994	9	7		1994-9-7	Guatemala	GT	Petén	17,3187987	-89,9058103	San Jose
14	UWP:106768	University of Vargas I	1	1997	4	18		1997-4-18	Guatemala	GT	Petén	17,661793	-89,4056627	Flores
15	UWP:107441	University of González F	E	1993	4	19		1993-4-19	Guatemala	GT	Petén	17,3892055	-89,7275	Flores
16	UWP:108120	University of Vargas I	1	1997	4	18		1997-4-18	Guatemala	GT	Petén	17,6569118	-89,6001739	Flores
17	UWP:108607	University of Fonnegra	R	1	1997	11	12	1997-11-12	Guatemala	GT	Petén	17,5094837	-90,2983051	San Andres
18	UWP:108631	University of Fonnegra	R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	17,4863769	-90,5676366	SanAndres
19	UWP:108632	University of Fonnegra	R	1	1997	11	10	1997-11-10	Guatemala	GT	Petén	17,4882065	-90,0195879	SanAndres
20	UWP:110071	University of Vargas I	1	1997	4	20		1997-4-20	Guatemala	GT	Petén	17,6674466	-89,3494615	Flores
21	UWP:111004	University of Itáraga A	1	1996	4	3		1996-4-3	Guatemala	GT	Petén	17,6971609	-90,6969102	SanAndres
22	UWP:111383	University of Betancur	J	1	1997	10	7	1997-10-7	Guatemala	GT	Petén	17,7946672	-89,8800209	San Jose
23	UWP:113512	University of Vargas I	1	1998	9	12		1998-9-12	Guatemala	GT	Petén	17,4534438	-89,6237693	Flores
24	UWP:115089	University of Callejas R	1	1999	8	6		1999-8-6	Guatemala	GT	Petén	17,7783778	-90,84424953	SanAndres
25	UWP:115381	University of Callejas R	1	1999	8	6		1999-8-6	Guatemala	GT	Petén	17,7795212	-90,1066629	Andresan
26	UWP:115382	University of Callejas R	1	1999	8	6		1999-8-6	Guatemala	GT	Petén	17,788847	-90,0136721	SanAndres
27	UWP:115651	University of Vargas I	1	1979	1	12		1979-1-12	Guatemala	GT	Petén	17,3098632	-89,7846692	San Jose
28	UWP:11571	University of Vargas I	1	1979	1	11		1979-1-11	Guatemala	GT	Petén	17,5995834	-89,1693535	Melchor de M
29	UWP:115953	University of Vargas I	1	1996	4	18		1996-4-18	Guatemala	GT	Petén	17,6636186	-90,9257567	SanAndres
30	UWP:11599	University of Vargas I	1	1979	1	11		1979-1-11	Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor de M
31	UWP:11638	University of Mercado J	1	1978	3	17		1978-3-17	Guatemala	GT	Petén	17,2446118	-89,2133292	Mercos de M
32	UWP:116523	University of Vargas I	1	1998	8			1998-8-	Guatemala	GT	Petén	5° 38' 12" N	75° 46' 18" W	Flores
33	UWP:116524	University of Vargas I	1	1998	8			1998-8-	Guatemala	GT	Petén	5° 35' 12" N	75° 46' 18" W	Flores
34	UWP:116525	University of Vargas I	1	1998	8			1998-8-	Guatemala	GT	Petén	7° 18' 10.12"	75° 04' 25.03"	Flores
35	UWP:116539	University of Callejas R	1	1999	10	9		1999-10-9	Guatemala	GT	Petén	17,7783778	-90,84424953	SanAndres
36	UWP:117325	University of Vargas I	1	1999	7	13		1999-7-13	Guatemala	GT	Petén	17,6719406	-89,2924027	Melchor de M
37	UWP:117536	University of Fonnegra	R	1	1999	OCT	22	1999-OCT-22	Guatemala	GT	Petén	17,466948	-89,9835948	SanAndres
38	UWP:117539	University of Fonnegra	R	1	1999	OCT	22	1999-OCT-22	Guatemala	GT	Petén	17,4696597	-89,5694044	SanAndres
39	UWP:117611	University of Fonnegra	R	1	1999	10	20	1999-10-20	Guatemala	GT	Petén	17,7216042	-90,062868	SanAndres