Tree Species Distribution (Field Maps I)

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Show (max. 2xA4)

1. A screenshot of a map showing the measurements

Figure 1 Showing the measured trees

2. The distribution of the main tree species of Salzburg? (Map Screenshot)

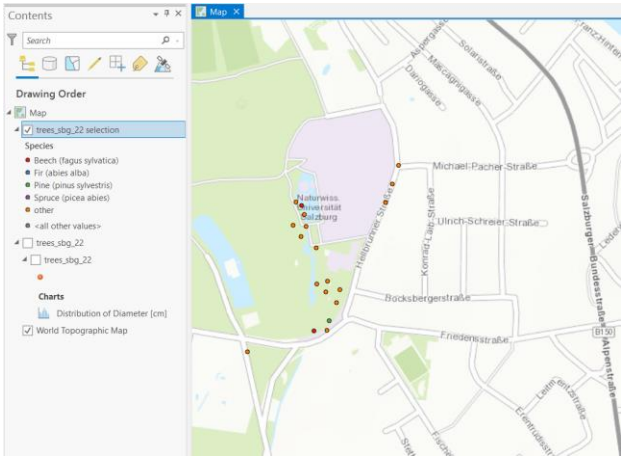


Figure 2 distribution of tree species along with the type (in contents)

3. The average and the range of tree diameters (species-specific?)

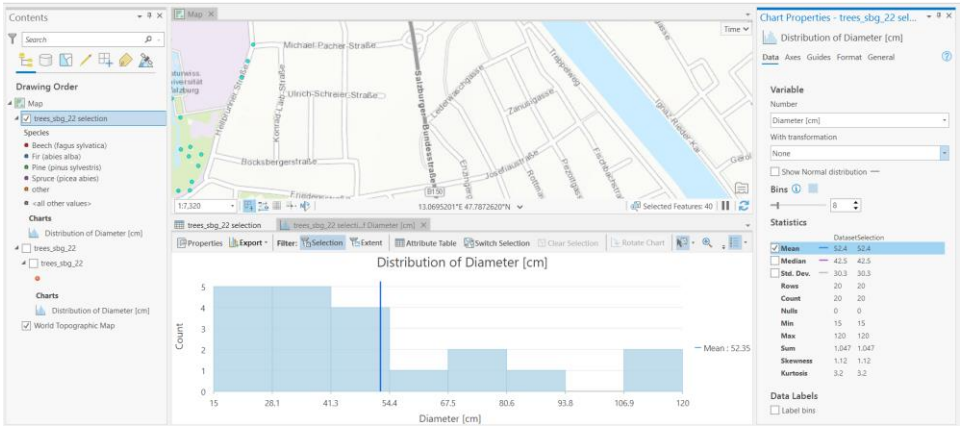


Figure 3 showing the range of tree diameters (15cm to 120cm), and the meane diameter is 52.35cm

4. The average and the range of tree height ((species-specific?)?

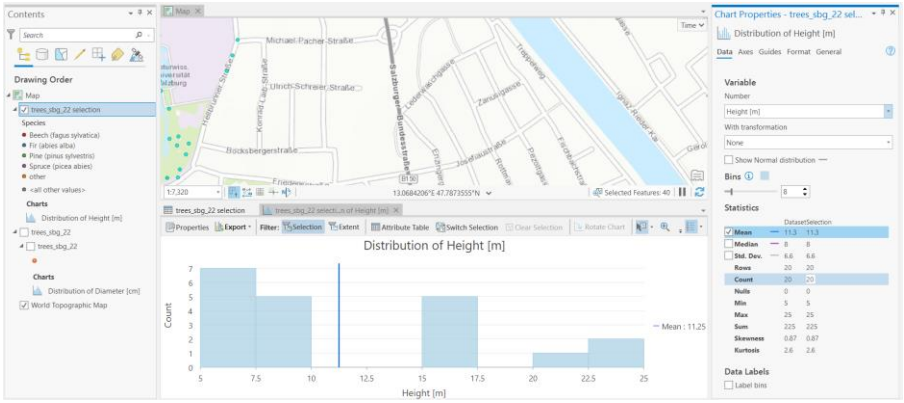


Figure 4 showing the range of tree height (5m to 25 m) and mean height is 11.25m

5. Concentration of completed surveys in a heat map.

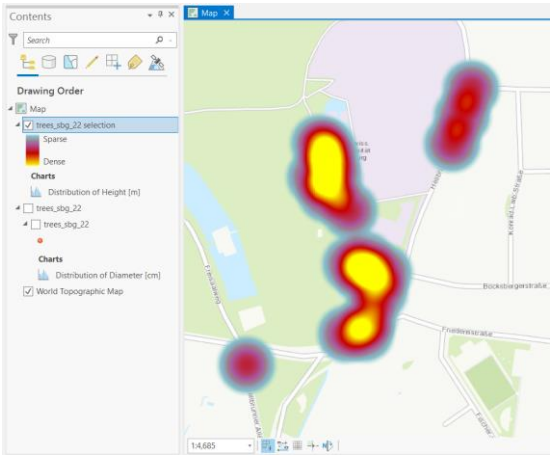
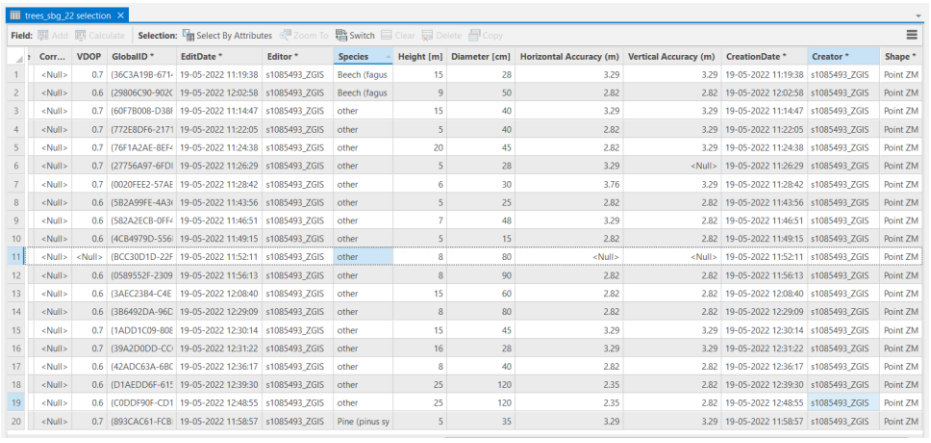


Figure 5 heat map

6. Screenshot of Attribute Table showing 20 datasets created by you (minimum) Species, height, diameter, accuracy, time, creator and photo (at least 1 per species)

Table 1 showing list of Species, height, diameter, accuracy, time, and creator.



	Corr...	VDOP	GlobalID *	EditDate *	Editor *	Species	Height [m]	Diameter [cm]	Horizontal Accuracy (m)	Vertical Accuracy (m)	CreationDate *	Creator *	Shape *
1	<Null>	0.7	{36C3A19B-671-	19-05-2022 11:19:38	s1085493_ZGIS	Beech (fagus	15	28	3.29	3.29	19-05-2022 11:19:38	s1085493_ZGIS	Point ZM
2	<Null>	0.6	{29806C90-902(	19-05-2022 12:02:58	s1085493_ZGIS	Beech (fagus	9	50	2.82	2.82	19-05-2022 12:02:58	s1085493_ZGIS	Point ZM
3	<Null>	0.7	{60F7B008-D38	19-05-2022 11:14:47	s1085493_ZGIS	other	15	40	3.29	3.29	19-05-2022 11:14:47	s1085493_ZGIS	Point ZM
4	<Null>	0.7	{772E8DF6-2171	19-05-2022 11:22:05	s1085493_ZGIS	other	5	40	2.82	3.29	19-05-2022 11:22:05	s1085493_ZGIS	Point ZM
5	<Null>	0.7	{76F1A2AE-8EF4	19-05-2022 11:24:38	s1085493_ZGIS	other	20	45	2.82	3.29	19-05-2022 11:24:38	s1085493_ZGIS	Point ZM
6	<Null>	0.7	{27756A97-6FD(	19-05-2022 11:26:29	s1085493_ZGIS	other	5	28	3.29	<Null>	19-05-2022 11:26:29	s1085493_ZGIS	Point ZM
7	<Null>	0.7	{0020FEE2-57AE	19-05-2022 11:28:42	s1085493_ZGIS	other	6	30	3.76	3.29	19-05-2022 11:28:42	s1085493_ZGIS	Point ZM
8	<Null>	0.6	{5B2A99FE-4A3(	19-05-2022 11:43:56	s1085493_ZGIS	other	5	25	2.82	2.82	19-05-2022 11:43:56	s1085493_ZGIS	Point ZM
9	<Null>	0.6	{5B2A2ECB-0FF4	19-05-2022 11:46:51	s1085493_ZGIS	other	7	48	3.29	2.82	19-05-2022 11:46:51	s1085493_ZGIS	Point ZM
10	<Null>	0.6	{4CB4979D-556(	19-05-2022 11:49:15	s1085493_ZGIS	other	5	15	2.82	2.82	19-05-2022 11:49:15	s1085493_ZGIS	Point ZM
11	<Null>	<Null>	{BCC30D1D-22F	19-05-2022 11:52:11	s1085493_ZGIS	other	8	80	<Null>	<Null>	19-05-2022 11:52:11	s1085493_ZGIS	Point ZM
12	<Null>	0.6	{0589552F-2309	19-05-2022 11:56:13	s1085493_ZGIS	other	8	90	2.82	2.82	19-05-2022 11:56:13	s1085493_ZGIS	Point ZM
13	<Null>	0.6	{3AEC23B4-C4E	19-05-2022 12:08:40	s1085493_ZGIS	other	15	60	2.82	2.82	19-05-2022 12:08:40	s1085493_ZGIS	Point ZM
14	<Null>	0.6	{3B6492DA-96C	19-05-2022 12:29:09	s1085493_ZGIS	other	8	80	2.82	2.82	19-05-2022 12:29:09	s1085493_ZGIS	Point ZM
15	<Null>	0.7	{1ADD1C09-80E	19-05-2022 12:30:14	s1085493_ZGIS	other	15	45	3.29	3.29	19-05-2022 12:30:14	s1085493_ZGIS	Point ZM
16	<Null>	0.7	{39A2D0DD-CC(	19-05-2022 12:31:22	s1085493_ZGIS	other	16	28	3.29	3.29	19-05-2022 12:31:22	s1085493_ZGIS	Point ZM
17	<Null>	0.6	{42ADC63A-6BC	19-05-2022 12:36:17	s1085493_ZGIS	other	8	40	2.82	2.82	19-05-2022 12:36:17	s1085493_ZGIS	Point ZM
18	<Null>	0.6	{D1AEDD6F-61!	19-05-2022 12:39:30	s1085493_ZGIS	other	25	120	2.35	2.82	19-05-2022 12:39:30	s1085493_ZGIS	Point ZM
19	<Null>	0.6	{C0DDF90F-CD1	19-05-2022 12:48:55	s1085493_ZGIS	other	25	120	2.35	2.82	19-05-2022 12:48:55	s1085493_ZGIS	Point ZM
20	<Null>	0.7	{893CAC61-FCB	19-05-2022 11:58:57	s1085493_ZGIS	Pine (pinus sy	5	35	3.29	3.29	19-05-2022 11:58:57	s1085493_ZGIS	Point ZM

7. URL of your shared Web Map including the (probably empty) tree web feature service created by you
https://www.arcgis.com/home/item.html?id=7b9403a733af414aaf4da289c158cddd

Comment on your own thoughts (1xA4)

1. **What are the limitations of the devices we were measuring? What are the limitations of human interpretation and recording of the data?**
   The Limitations was felt as, we could not add species type in another category, Whereas, the device has accuracy of minimum 0.2m.

2. **How do scale, terrain, accessibility to the objects, fatigue, and other factors affect the data you collect?**
   Scale of photos is not consistent therefore; measurement of trees is not possible from photos. it is just for a general reference of actual object on ground. Accessibility seems to be problem for dense areas and for trees near water bodies.

3. **How do the number and type of the data points affect the analysis you will perform on the data?**
   The overall analysis is actually based on the total number of collected tree samples also their type. As different type of tree is responsible for the variations in the overall measurement. If you fee in the table 1 above you will fine the only pine tree has the height of 5 metre and diameter of 35 centimetres, though is the very less is number that is way it is not creating a major impact on the overall measures. This scenario is applicable with each and every type of tree species.

4. **Discuss the pros and cons of GNSS data collection methods we covered**
   Pros: Fast, user friendly method for data collection
   Cons:
   - inconsistent accuracy,
   - lower accuracy in near the actual feature (trees),
   - generalized measurements/ collection method for height and diameter values.