

FRUITMAP AND FALLING FRUIT – TOOLS FOR MAPPING URBAN FRUIT TREES IN THE CITY OF NITRA

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Fruiting tree species are not planted often in urban areas. Planners often avoid the selection of fruit trees, but local initiatives and inhabitants started activities, which prefer urban fruit trees and activities such as open source urban fruit maps makes us rethink the role of fruiting trees in urban conditions. In total we found 7 open source fruit tree maps with useful databases. We excluded Google fruit trees maps, because they were regionally limited to a small area and some of them were merged into bigger e-platforms such as Fallingfruit. The most important open source fruit map from the view of data utilization in policy making and governance is Fallingfruit, with more than 230 data sources.

Keywords: urban fruit, open source maps, urban tree

Introduction

When choosing urban tree species, landscape architects, planners and decision makers try avoiding species such as with highly allergenic pollen, fruiting (especially trees with large or odorous fruits), poisonous or invasive ones. The current planting design concepts are therefore aimed at natural plant communities with a high potential adaptability to extremes in the environment (Paganová and Jureková, 2012; Sudzina and Rovná, 2014). As Kollár et al. (2009) and Pejchal (1991) mention, correct tree species selection into urban environment has a significant impact on the health and vitality of urban trees what is reflected in management. In the last decade questions about food security, urban horticulture, resilient urban communities arise also terms as urban horticulture, guerilla grafting, urban orchard, urban edible forest, “edible” roof gardens (Lipovská, 2013; Ettinger, 2012; Takáčová and Klimantová, 2011; Mezey, 2005) and activities such as open source urban fruit maps makes us rethink the role of fruiting trees in urban conditions. There are even small cities like

Modrý Kameň in Slovakia, which build up their urban image by growing fruit trees (sweet chestnut) inside the city (Pástor, 2013). A new approach towards urban fruit trees must therefore be found. The aim of this paper is to analyze the occurrence of open source fruit maps as tools of their mapping.

Framework and methodology

We searched open source fruit tree maps with the Google search tool. We used the keywords – “urban, fruit, tree, map, urban orchard”. The found open source urban fruit tree maps were analyzed from aspects of users.

Results and discussion

In total we found 6 open source fruit tree maps:

1. City Fruit is a Seattle (USA) based initiative of an NGO, which is active since 2008 and promotes the cultivation of urban fruit in order to nourish people, build community, protect the climate, grow healthy fruit, provide assistance in harvesting and preserving fruit, promote the sharing of extra fruit and work to protect

Table 1 Fruit harvest costs from the annual report of Cityfruit

Harvested Sites/ Years	Lbs of Fruit	Cost to Harvest & Sell	Fruit sales Income	Net cost after sales	Cost per lb of Donated Fruit	Notes	
2009	–	10,213	\$8,512.00	–	\$8.512.00	\$0.83	Dept. of Neighborhoods Grant
2010	122	10,121	\$14,000.00	\$750.00	\$13.250.00	\$1.31	Dept. of Neighborhoods Grant
2011	104	6,635	\$5,680.00	\$1,400.00	\$4.280.00	\$0.65	–
2012	190	18,414	\$13,583.00	\$2,230.00	\$11.353.00	\$0.62	DON Grant to add 3 rd neighborhoods
2013	151	10,017	\$9,831.00	\$3,588.00	\$6.243.00	\$0.62	Extremely low yield year
Total	567+	55,400	\$51,606.00	\$7,968.00	\$43.638.00	\$0.79	–

Source: <http://cityfruit.org/wp-content/uploads/2014/03/2013-City-Fruit-Annual-Report.pdf>

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urban fruit trees. City Fruit works neighborhood by neighborhood to harvest extra fruit and distribute it to food banks, meals programs, senior centers, schools and others who can use it (www.cityfruit.org). This initiative has a strong financial background described by Ettinger (2012) (Tab. 1).

2. Fruit city is an UK initiative and its aim is to search for fruit production surplus in urban areas. It is an open source fruit tree map (Fig. 1). Volunteers can add basic information about fruit trees. The database is growing quickly and the website provides also additional information from tree determination to recipes (www.fruitcity.co.uk).
3. Fallingfruit is the most comprehensive open source fruit map with a large dataset. Nowadays 230 Google fruit tree map datasets are imported from different localities on a global scale. The database contains

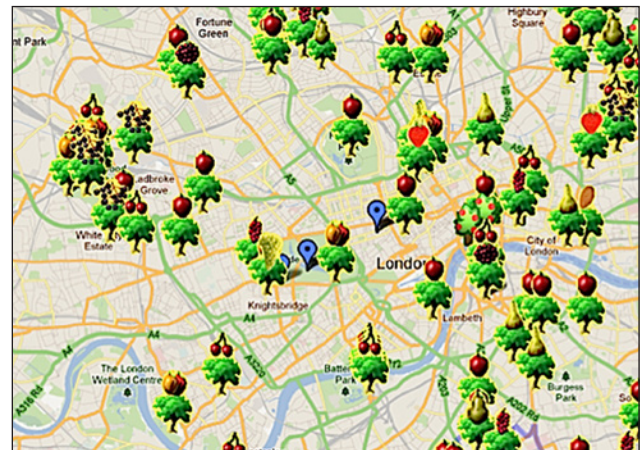


Figure 1 Fruit city map – detail from London
Source: www.fruitcity.co.uk

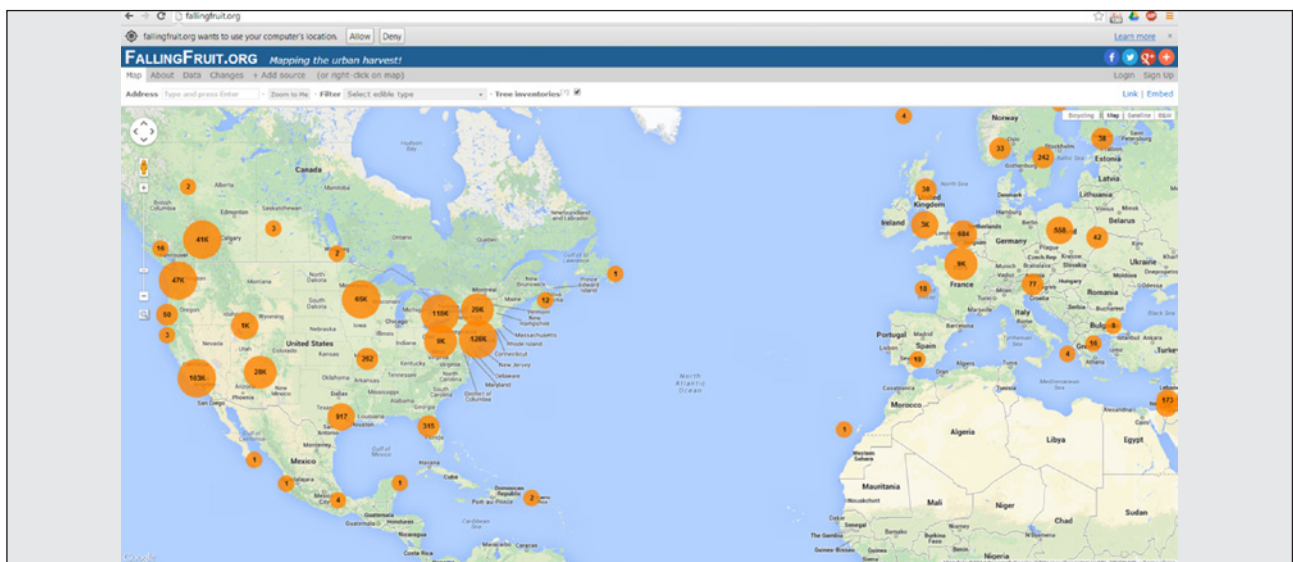


Figure 2 Falling fruit
Source: www.fallingfruit.org

except of the localization information about varieties,

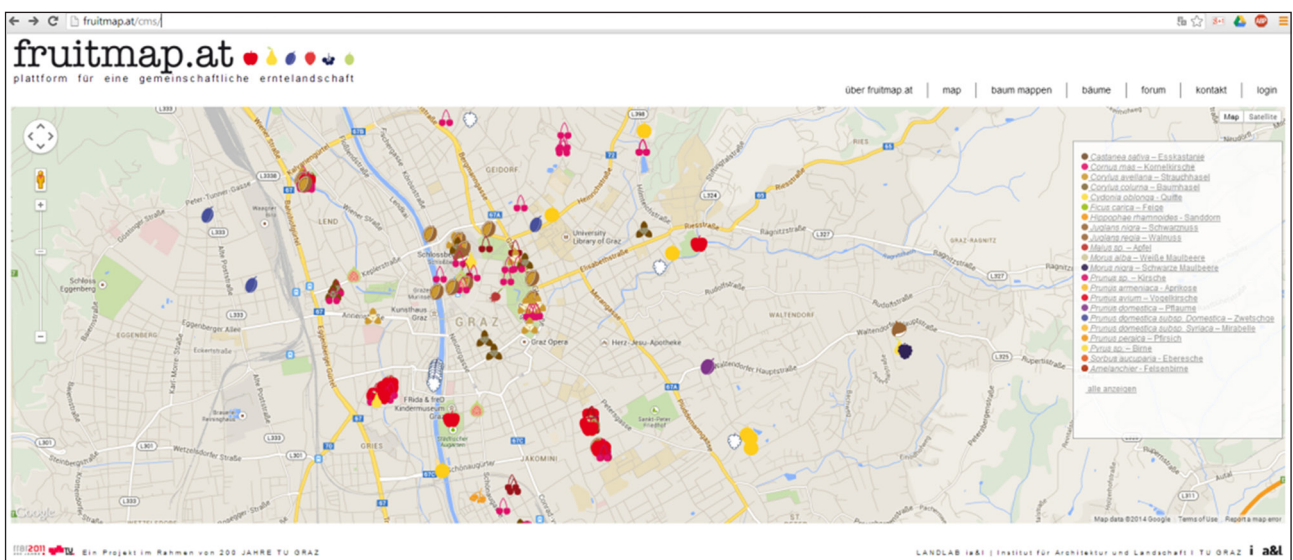


Figure 3 Fruitmap
Source: www.fruitmap.at

harvest time, property information (public, semi-private, private, but branches lean over the fence etc.) The information in this database is the most reliable from the found open source maps (Fig. 2).

4. Fruitmap.at is a platform created by TU Graz and mainly focuses its activity in this region. The aim of this open source fruit map is to create an inventory of fruit trees growing in the city which can be harvested. The database gives the user additional info about the property and land ownership, where the trees can be found.
5. Fruitmap.sk is a very basic open source map created as a graphic design project in Slovakia. The data are simple and the map is poor on information, but has a global coverage.
6. Neighborhood Fruit is a smartphone application, which provides an easy tool for the application users to share the position and quality of urban fruit. The users can add trees, but also search in the terrain (Fig. 4).



Figure 4 Neighborhood Fruit smartphone application
Source: www.neighborhoodfruit.com

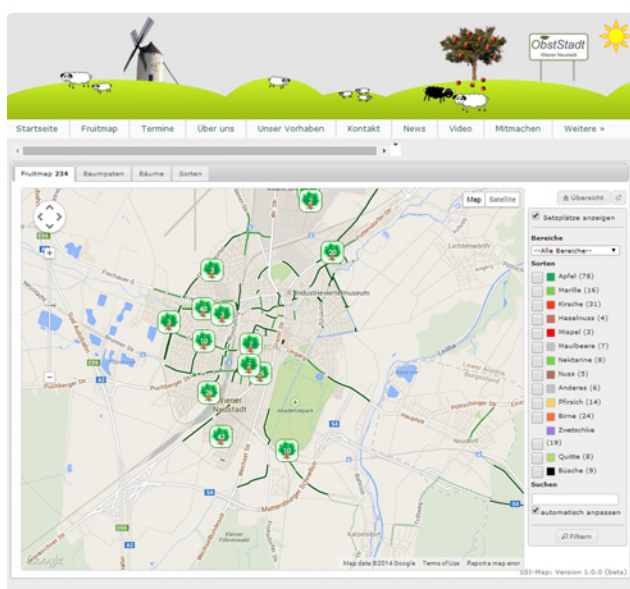


Figure 5 Obststadt
Source: www.obststadt.at

7. Obststadt is an initiative in the city of Wiener Neustadt, which closely cooperates with the Austrian fruitmap.at; the webpage is interlinked and similar to fruitmap.at. The negative aspect of the database is its reduced geographical area (within Wiener Neustadt) (Fig. 5).

Conclusion

In total we found 7 open source fruit tree maps with useful databases. We excluded Google fruit trees maps, because they were regionally limited to a small area and some of them were merged into bigger e-platforms such as Fallingfruit. The most important open source fruit map from the view of data utilization in policy making and governance is Fallingfruit, with more than 230 data sources. Open source fruit tree maps should be considered as a good and cheap opportunity for local authorities to implement data gained in these databases.

Acknowledgements

The article was written with the help of KEGA 012SPU-4/2013 Lifelong learning program for arborists in Slovakia.

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