Place Names Database of Latvia

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Abstract

The Place Names Database of Latvia is being developed at the Latvian Geospatial Information Agency. Microsoft Access 2000 is being used for data input and data selection in the Database. The Place Names Database of Latvia includes all names (names of natural features, populated places, etc.) from the Satellite Map of Latvia, scale 1:50000 and from the Topographic Map of Latvia, scale 1:50000, as well as place names from other sources. The development of the Place Names Database of Latvia started in 1998. It currently contains 128,257 place names for 103,310 features (15.12.2010).

The user may apply combinations of various criteria when searching the names. Feature type or group of feature types is a common key as well as administrative belonging and size of feature. It is possible to sort the geographical names of one or more administrative units in alphabetical order. The user can see query results on the screen as the database table and the location of the feature on the map.

The tasks of the Place Names Database of Latvia are to collect, codify, systematize and keep information about the geographical names of Latvia, to provide national cartography with accurate, standardized geographical names, to provide state and municipal institutions with necessary information about geographical names, to provide information and consultations about geographical names and correct spelling, to popularize information about correct usage of geographical names by making and publishing registers and gazetteers as well as placing the database on the internet, and also to collaborate with foreign specialists by exchanging information and experiences as part of work on geographical names. A large, nationwide and homogenous database of geographical names with feature types and object coordinates provides a new source of information for researchers, such as onomasticans, historians and natural scientists.

The objective of this paper is to give information about the Place Names Database of Latvia. A short overview about the development of the Place Names Database of Latvia will be given first, and after that we will deal with the structure, tasks and main principles of the compiling of the Database. In the last part we will focus on the main application fields of the Database.

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1. Development of the Place Names Database of Latvia

The development of the Place Names Database of Latvia was started in 1998 by the Laboratory of Toponymy of the State Land Service of the Republic of Latvia. Since 2006 the Place Names Database has been developed by the Latvian Geospatial Information Agency – the public agency under the Ministry of Defence of Latvia. Given the status of computer engineering, the most suitable system for creating and maintaining the Database was the one based on the Microsoft Access system at that time. Eleven years ago the Database contained about 10,000 of the first experimental entries (Cekula, Z. and Goba, Z. 2000: 41). The Place Names Database of Latvia currently contains 128,257 place names for 103,310 features (15.12.2010). Microsoft Access 2000 is being used for data input and data selection in the Database. MS SQL Server was used for data storage from 2000 to 2007. Since 2007 ORACLE has been used as the database server.

2. The main principles of compiling the Place Names Database of Latvia are:

1) the Database should cover the whole country
2) the Database should include a wide variety of geographical information
3) coding in the Database should be systematic
4) the Database should provide positions such as latitude and longitude
5) the Database should include the appropriate name and variant names
6) the pronunciation of place names should be indicated

3. Structure of information in the Place Names Database of Latvia

The Place Names Database of Latvia includes names of physical features, populated places, and administrative areas presented on the Satellite Map of Latvia, scale 1:50000, and on the Topographic Map, scale 1:50000. In the Database the place names are divided into 21 feature groups and further classified into more than 150 feature types. In addition to place names, the Database includes other text objects such as explanatory texts and numeric values.

As far as the feature information is concerned, the Database contains feature ID as a possible link to other registers (Address Register, etc.), the appropriate name of the feature and variant names (it may have the second appropriate name for the feature in question in some cases), feature type, feature location (geographic coordinates and Latvian Coordinate Systems LKS92 right-angled coordinates – the centre point for square features such as lakes, the mouth of a river), description of features' location in nature, condition of feature (existing, partly disappeared or does not exist), numeric characterization of the feature (for instance the number of inhabitants of populated places) and administrative belonging of features. In background tables feature types can be aggregated freely as feature groups.

The most important is feature ID, because in many cases different features have the same name; for example the name *Mežciems* (Latvian **mežs** 'wood' and Latvian **ciems** 'village') is borne by 29 features of the Database (Figure 1), among them parts of cities named *Mežciems* in the two largest cities of Latvia, Riga and Daugavpils.

Figure 1. Location of features with the name *Mežciems*

In the Place Names Database of Latvia it is possible to enter a wide range of information about a feature's name, such as the pronunciation of the name, the name's user environment and frequency of usage, as well as information about the origin of the name, previous names and time when such names were used, form of the name (literary, dialectal, unclear or obscure, etc). The name is stable when the place has one name, but it is often unstable when several variant names exist in local usage. In such cases it may be difficult to choose the appropriate name.

A register of sources is given in background tables. It is possible to add a new source of place names if it is necessary. There are two main groups of sources in the Place Names Database: cartographic sources and literary sources. In many cases unpublished literature,

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2388

such as notes taken during place name expeditions, card indexes etc., may supply important additional material when choosing the appropriate name for the feature in question.

Map presentation is available for every feature, showing the name of the feature in relevant cartographic products.

The user may apply combinations of various criteria when searching the names. Feature type or group of feature types is a common key as well as administrative belonging and size of feature. It is possible to sort geographical names of one or more administrative units in alphabetical order. The user can see query results on the screen as the Database table, the information card for the definite object and the location of the feature on the map.

4. The tasks of the Place Names Database of Latvia

The tasks of the Place Names Database of Latvia are to collect, codify, systematize and keep information about geographical names of Latvia, to provide national cartography with accurate, standardized geographical names, to provide state and local and regional governments with necessary information about geographical names, to provide information and answer consultations about geographical names and the correct spelling of geographical names, to popularize information about correct usage of geographical names by making and publishing registers and gazetteers, and also to collaborate with foreign specialists by exchanging information and experiences as part of the work on geographical names.

5. Application

Possible fields of application and products related to the Place Names Database of Latvia are:

5.1. Mapping – to provide the Department of Cartography and other bodies with accurate, standardized geographical names.

5.2. Preparation of place name dictionaries and gazetteers. A number of place name dictionaries and gazetteers have been prepared by using the Place Names Database, for instance the gazetteer *Latvijas ciemi* [Village Names of Latvia] and place names dictionary ***Staburaga pagasts. Vietvārdi. Ģeogrāfija. Kultūras mantojums*** [Staburaga civil parish. Geography. Place Names. Cultural heritage], compiled by R. Avotiņa (Figure 2).

5.3.

Figure 2. Place name dictionaries prepared using the Place Names Database of Latvia

Els noms en la vida quotidiana. Actes del XXIV Congrés Internacional d'ICOS sobre Ciències Onomàstiques. Annex. Secció 10

2389

5.4.Internet services. Since 2008 the Place Names Database of Latvia has been available as a Web Map Service on internet (http://vietvardi.lgia.gov.lv/vv/to_www.sakt)

5.5. Place names consultations

5.6. Scientific investigation of place names

By combining different spatial, attribute and spelling criteria the researcher can find answers to existing problems and derive new subjects of study. It is possible to search name elements or generics. For instance, place names with *jod,* from Lithuanian **jodas** 'black', Latvian **jods** 'devil', are located in the southern part of Latvia, predominantly close to the border with Lithuania and in the central part of Latvia (Figure 3).

Figure 3. Place names with **jod**

There are a lot of cases where it is important to find the correct location of a place name. The most interesting is related to Latvia map stamps, printed on German military maps after World War I. The maps were from the series Karte des westlichen Rußlands. With the war-induced shortage of paper in Latvia, stamps had been printed on those maps after November 18, 1918, when Latvia declared its independence (Barefoot, J. 1987:3). The Place Names Database of Latvia was used when toponymists from the Latvian Geospatial Information Agency took part in finding the correct location of place names on Latvia map stamps to help in the research carried out by Janush Golaski from the Czech Republic. Figure 4 shows the correct location of Anssul (Anzuļi) and Leismise (Lejasmizas) in Ļaudonas pagasts (Ļaudonas civil parish), Madonas novads (Madonas area), on the map scale 1:10000 with their contemporary situation.
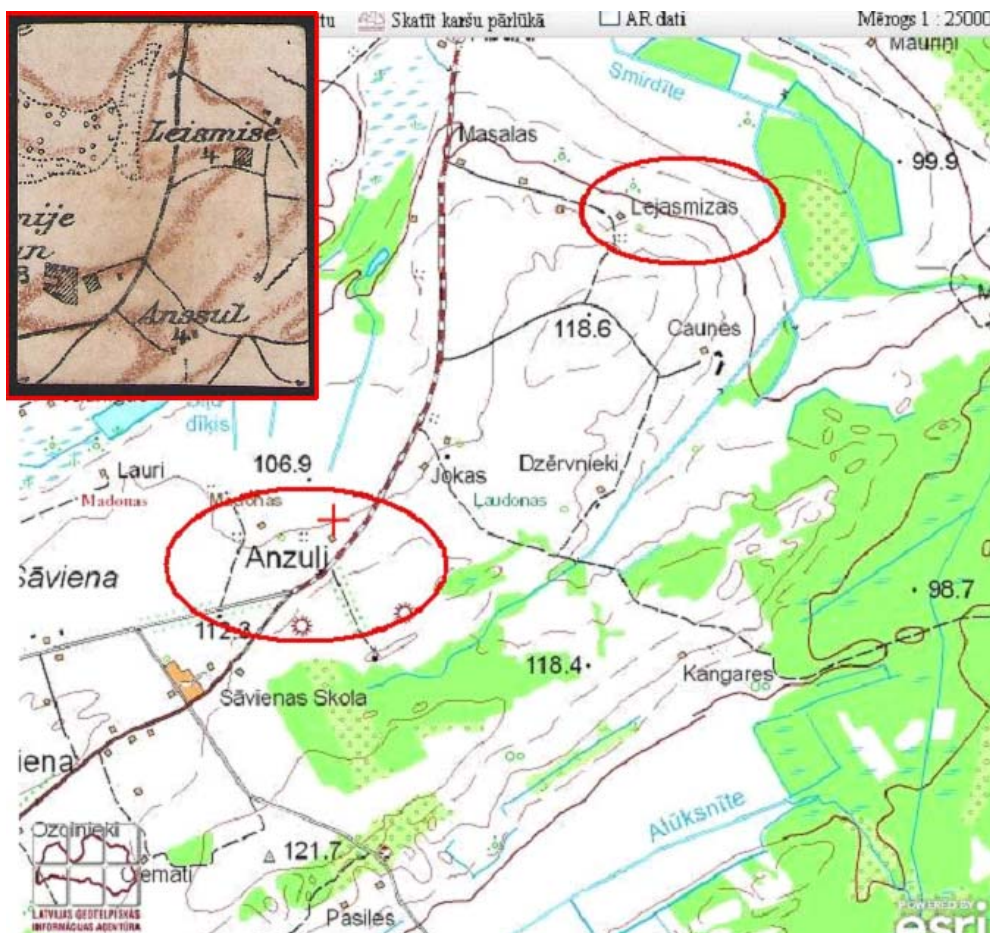
Els noms en la vida quotidiana. Actes del XXIV Congrés Internacional d'ICOS sobre Ciències Onomàstiques. Annex. Secció 10

2390

Figure 4. Finding the correct location of place names on Latvia map stamps by using the Place Names Database of Latvia

5.7. Rendering of services. The main services given are selection and arrangement of varied information from the Place Names Database of Latvia, preparation of various datasets for customers, place name consultations about names and corresponding geographical objects. Selection of place names (beginning with letters R and S) for the Latvian Language Institute was carried out in 2011.

Conclusions

A large, nationwide and homogenous database of geographical names with feature types and object coordinates provides a new source of information for researchers, such as onomasticians, historians and natural scientists. By combining different spatial, attribute and spelling criteria they can find answers to existing problems and derive new subjects of study. It is important to develop the Database (to enter more information, etc.) and to popularize information about the correct usage of geographical names.

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2391

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