Rāzna National Park

A selection of excursion destinations

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Förord

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Abstract
Different areas in Latvia’s youngest National Park Rāzna have been visited and analyzed. One objective was to find out if ecotourism is a possibility and what improvements need to be made. Latvia has a very old history of nature conservation. Objectives to protect valuable species and habitats for the future are influenced by factors such as economy and politics. The laws and regulations concerning environmental care are dependent on the processes and conditions that have contributed to forming them. What is considered normality in Sweden can be completely different in Latvia even though the intentions and wished results are the same. The conclusion is that there is potential for ecotourism, although many factors must be considered and disadvantageous situations be avoided in the nature protecting process.

Keywords: Latvia, ecotourism, Lake Rāzna, Lake Ezezers, environmental care, National Park.

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1. Introduction

History and guidelines of nature conservatory politics

There are 681 legally protected areas in Latvia, including internationally protected Natura 2000 territories, which cover 11.9% of the territory. If a rare species or habitat is threatened and uncommon, there is a possibility of establishing a microreserve, over 1000 has been erected outside a specially protected nature territory (Latvijas dabas fonds 2012).

Out of the 27 443 species known in Latvia, 236 animal species, 426 plant and 62 fungi species are included in the list of specially protected species (Ministry of the environment of the republic of Latvia 2010). In 2009 one of the most comprehensive evaluations of conservation status of habitats and species was done in Latvia according to the EU Habitats and Bird Directive. The results show that only 31% of habitats and 50% of species of the EU importance are in a favourable conservation status in Latvia (Ibid).

Latvia has a very long tradition of nature conservation; the first laws were posted as early as the 16th century, saying that certain areas and their qualities stand under individual system of regulations and Moricsala reserve, an island in Usma Lake, became the first protected territory 1912 (Europarc 2012).

In 1995 the Latvian government decided on passing the National Environmental Policy Plan for Latvia, a compilation of guidelines that was unique in the way that it had a concrete plan to carry out protection of biologically valuable areas.

Outside of designated protected areas, which fall under specific laws for nature territory, threatened species are protected from human activities through the Law on Protection of Species and Habitats which this year has been valid for 20 years within the EU member states. As a tool of conserving and safeguarding various species by this law, the Natura 2000 network was established. In Latvia 336 specially protected nature territories concerning 127 species and 58 types of habitats are confirmed since the net was joined in 2004 (Latvijas dabas fonds 2012). The sustainable use of biodiversity in the agriculture world is regulated by the Rural Development Plan, which encourage organic farming and the breeding of local animal breeds.

All over, Latvian environmental legislation works after best ability to meet the requirements of the EU directives and the Convention of biological diversity, which Latvia signed in 1992 together with 192 other nations. The Convention of biological diversity has three objectives and a strategic plan to work towards these objectives (Ministry of the environment of the republic of Latvia 2012). The first one “Conservation of biodiversity” is the one that has been most adopted and actively used within the Latvian conservatory work, most likely due to the flexible nature of that objective making it more adoptable.

Just like in Sweden there are several forms of special protected territories which differ in regulation and management. It can vary from very set prohibitions to minor restrictions but they are all under the protection of the State and laws like General Protection and Use of Specially Protected Nature Territories (figure 1). Cooperation and compensation to the private landowners, either economically or by land replacement, is part of the process of the nature protection (Nature Conservancy Agency 2010).

The purpose is to include rare, original, beautiful landscapes characteristic of Latvia, species that need protecting and promote areas socially significant for leisure and outdoor life in society. The protected areas are classified according to following categories:

(Varam - Ministry of environmental protection and regional development 2014)

Strict nature reserves – There are 4 of these territories established in Latvia, with the criteria being very little transformation by human activities and specially protected biotopes with wild plant and animal species. The 4 strict nature reserves are Moricsala (1912), Grīni (1936), Krustkalni (1977) and Teiči (1982).
**Nature parks** - There are 42 nature parks in Latvia with Engure Lake Nature park, Tērvete Nature park and Nature park “Daugava’s Circles” being a few of them. These are territories that represent the natural, cultural and historical values in a particular region, suitable for recreation and education of society.

**Nature reserves and nature reserve zones** – There are 275 nature reserves in Latvia. The criteria are that the territories are unaffected or slightly affected by human activities and include habitats of specially protected wildlife species of plants, animals and biotopes.

**National parks** - There are 4 national parks in Latvia: Gauja National Park (1973), Ķemeri National Park (1997), Slītere National Park (1999) and Rāzna National Park (2007). The criteria are vast areas with outstanding nature, formations, landscapes and cultural heritage of national importance, diversity of biotopes, cultural and historical monuments. The importance of education, scientific research, nature protection and leisure go hand in hand. Since reorganising the administrative system in 2009, the Nature Conservation Agency became responsible for management, control and public relations for 360 protected areas, including the 4 national parks.

**Biosphere reserves** – In 1997 North Vidzeme Biosphere reserve was established in Latvia. Here is a broad territory with important landscapes and ecosystems and the aim is to ensure both the preservation of natural diversity and promote the social and economical development of the territory, not letting restrictions stand in the way for growth.

**Natural monuments** – There are 355 nature monuments in Latvia, 206 geological and geomorphological, 89 dendrological and 60 avenues are protected. They all are separate, isolated natural formations or monuments, with geological, scientific, cultural or ecological value.

**Areas of protected landscapes** -- Territories remarkable for original and diverse landscapes and special beauty. The aim of these areas is to protect and preserve cultural environment and landscapes characteristic of Latvia in all their diversity, as well as to ensure the preservation of environment suitable for tourism and recreation. There are 9 protected landscape areas in Latvia.

**Marine reserves** – There are 7 marine reserves in Latvia. They are areas of intertidal or subtidal terrain with overlying water and associated flora and fauna to be reserved for the future.

**Microreserve** - There are 1050 micro-reserves established outside specially protected nature territories. They are significantly smaller than nature reserves and require less time and legal work to establish.
Figure 1. Map with the ten different nature protection categories in Latvia the fourth one (in pink) including Gauja National Park (established in 1973), Kemeri National Park (1997), Slītere National Park (1999) and Rāzna National Park (2007). From the Latvian Nature Conservation Agency 2012 (daba.gov.lv/public/).

Swedish legislation for environmental care

A a comparison to the Latvian environmental work the first Swedish national parks were established in 1909 as the very first in Europe (Bergil et al. 2004). The insight that there is a worth in preserving nature and our right to use and change it is unified with a responsibility to promote sustainability and make sure that generations to come have a healthy and sound enviroment to live in, had grown both in Sweden and internationally. One of the most important differences between Swedish and Latvian national parks is that the Swedish land on which the parks are located has to be owned in its entirety by the state. Only 2% percent of the land in Rāzna National Park is government owned, the rest is private or company owned.

Law concerning the enviroment is gathered in the Enviromental code, connecting over 15 old laws to be more wieldy and perspicuous. It includes 7 parts regarding people’s health and their living enviroment, nature habitats, biological diversity, air and water are protected so an ecological, economical, cultural and social standard can be maintained. Recycling of materials, primary products and energy, and other methods are promoted to reduce our strain on the world’s resources.

Sweden also have an aim to before year 2020 reach their 16 enviromental goals, ”Miljömålen”, describing the desired result, work that needs to be done and how the ideal solution would look. The goals concern everything from forests, oceans, lakes and cultural habitats and also human safety and well-being. Every year a rapport is written concerning the goals and every forth year they are evaluated. In 2009 the Swedish parliament approved of several stage goals, as steps on the way to
reach the real objectives in the future. They are very strongly connected to the Swedish enviromental legislation and concretise the surveillance work which has them as a foundation (Miljömålsportalen 2011).

The enviromental regulation of the European Union is also an important influence, incorporating EU-directive in the national legislation while EU-decrees are applied in all member states no matter the national legislation (Naturvårdsverket 2012). Sweden is also connected to international conventions to protect the enviroment and economize nature resources. The Århus-convention defines the rights of the public, like getting access to information and affecting decisions of the authorities (Regeringskansliet 2012).

2. Aims

The aim for this study was to look further into the compund of one of the most sparsely populated regions in Latvia. I wanted to get a view of the overall landscape, nature values and cultural conditions in some of the areas in Rāzna nationalpark that where most accessible and worth seeing. What were the characteristics and conditions of the visited sites, where they specifically interesting for tourism and is there potential for an increased ecotourism? The outcome of this study is also intended to work as a form of tourist guide about an area that still is relatively unknown and not very well visited.

3. Latvian nature and tourism

Latvia is geographically located on the East-European plain with influences from the Baltic Sea which places it in the temperate zone with a mixed boreonemoral forest often standing on alfsols (Christopherson 2009). In this most eastern region of Latvia, called Latgale, the characteristic landscape consists of flowing hills of different sizes. They where formed when the ice sheet broke up and deposited material ackumulating around it, leaving topographic differences (Bo Eknert personal communication). Most of the country is composed of fertile lowland plains, consisting of gravel sand and clay, and moderate hills, often with the agricultural landscape in combination with the vegetation and forests creating a mosaic. Especially this type of landscape, consisting of smaller patches, similar to the one disappearing in Scandinavia in modern times (Bergil et al. 2004) is still present here.

Bogs and mires cover almost 10 % of the Latvian territory. There are enormous quantitys of unexploited shoreline and thousands of kilometers of rivers. The agricultural landscapes with managed and unfertilized grasslands, containing high biological values and over 500 species of plants with hymenopteran as the most important pollinators (Widén 2008) are now slowly being reduced. Kept often by grazing, many old types of grassland are now threatened by overgrowth, either by forests or shrubery (Visit Europe 2014). When Latvia was a part of the Soviet Union, a larger procentage of the land was used for agricultural purposes, especially in collective farms. Now with population density being low and landowners growing older, much of the acreage is left unused and deserted (Irena Muskare personal communication).

The Latvian flora and fauna is very diverse with many species of plants and animals like populations of wolf (Canis Lupus), lynx (Felis lynx), bear (Ursus arctos), fox (Vulpes vulpes), deer (Cervus elaphus), moose (Alces alces), boar (Sus scrofa) and Eurasian beaver (Castor fiber). Wolf, beaver and lynx are quite common species in Latvia while being endangered in other European countries. This also apply to Eurasian otter (Lutra lutra), crane (Grus grus), black stork (Ciconia
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*nigra)*), corncrake (*Crex crex*), lesser spotted eagle (*Aquila pomarina*), and white-backed woodpecker (*Picoides leucotos*). The overall diversity of birds is something extraordinary, with 330 detected species (The Latvian Institute- Nature and Ecotourism 2012).

The national trees of Latvia are oak (*Quercus ruber*) and linden (*Tilia cordata*) and the national flower is the daisy (*Leucanthemum vulgare*). One of the most important cultural symbols in Latvia is amber, the fossilized tree resin, which has been appreciated merchandise even before the Viking age.

*The importance of the forest*

Latvia has the 4th highest proportion of land covered by forest in the European Union. It constitutes of decidous trees, like birch, alder, aspen, oak and ash, but also coniferous trees like pine and spruce. Scots pine (*Pinus sylvestris*), Norway spruce (*Piceas abies*) and species of birch (*Betula*) make up for 73, 8 % of the total forest area (NFI). Trees grow on over 44 % of the country surface and this number is still growing due to the overgrowing of agricultural land and the inreasing industry of forestry which is one of the most crucial parts of the countrys economy, with half of the forest being state property.

The forest sector in Latvia has developed, and is still developing, from an institutional to a market adjusted system (Norström 2005). As a result of this, the ages of the trees that constitute the different forest stands have a very narrow age spectra. The most common are the young and middle aged stands leaving the older aged ones very low in comparison. The absence of dead wood and unevenly aged trees, with the possibility operate their natural lifecycles, is a serious problem for the species linked to trees in different stages (Bergil et al. 2004). This is just one example of how organisms and their habitats are endangered by degradation and fragmentation due to human activities (Sadava et al. 2008).

For some habitants, especially on the countryside, forestry might be the only basic source of income which does not ease the problems of having a sustainable use of the forest and at the same time have the continuity and conditions to increase ecological variety.

The National Forest Policy, approved in 1998, outlines a number of goals for Latvian forestry: to preserve and increase the area of forested land and its productivity, to ensure sustainability within the forestry sector, to preserve biological diversity, to balance public and forest owners interests with respect to social values and labour opportunities and to ensure sufficient competence of those engaged in the forest sector. (Ministry of the Environment of the Republic of Latvia 2010). Over half of the Latvian forest is certified according to the Forest Stewardship Council (FSC) (Hiler 2004).

Less than 0.2% of the forest area falls within the strict regime zones of reserves while 45 % of forests are privately owned and increasing. It is considered that forest management and wood harvest is the most important factor affecting Latvia’s biological diversity (Convention on Bio diversity – Profile for Latvia 2012). This is a very ironic controversy when the revenue from the forestry is such a massive factor, that even the Conservation Agency is forced to turn to this industry to cover their budgets.

*Ecotourism*

The concept of ecotourism is based on the same foundation as regular tourism and travel, with people wanting to go and experience places beyond their homes. The difference is that emphasis is put on engagement for nature and not wanting to cause damage or too much impact. Destinations are often habitats of untouched, virginal nature and with a light or slow degree of exploitation. Therefore integrating nature conservation and ecotourism has become a popular way to motivate local communities to support nature conservation projects. (Abbot et al., 2001)

The name ecotourism was founded 1983 by Héctor Ceballos-Lascurain at International Union for
Conservation of Nature (IUCN). He spoke both of the activity as well as the attitude of the traveller and the importance of accurate environmental care (Planeta 2012), while factors of economical and social improvement in local communities were added later on. The International Ecotourism Society (TIES) was founded 1990, setting several criteria defining the concept and conditions of organised ecotourism.

The idea is to strive for environmentally responsible, enlightening travel and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations (Ceballos-Lascurain, 1996). To obtain quality in the effects of tourism projects, emphasis is put on the importance of local communities having some control over, and sharing in the benefits of, ecotourism initiatives in their area (Scheyvens 1999). There are many ecotour operations which work closely with or are co-managed by native communities which do enhance and promote the well-being of locals, successful examples being native sites in Peru and Ngai Tahu of New Zealand (The International Ecotourism Society 2014).

In Latvia, since the Iron Curtain fell, tourism has largely been a blank spot, where the country first and foremost has had to reestablish itself. The Latvian Institute included ecotourism as a sustainable way to promote nature to tourists and the concept has developed greatly. With countryside with numerous animal populations, diversity of nature and culture and a very idyllic agricultural landscape the standards for Latvian ecotourism have become country homes, lodges and farms in recent years. Today, an increasing number of farmers are opening their farms to tourists; more than 140 farms offer bed-and-breakfast services and a variety of leisure activities (The Latvian Institute 2012). There are natural and cultural monuments, a combination of ecosystems in different stages of human influence and the feeling of a habitat environment unaffected by time. Many farms look like they did a hundred years ago and here there is a feeling of actually experiencing what we often tend to forget, generations before us living of the land (Ricklefs 2008). New research about ecotourism in an agricultural landscape is performed at the Swedish University of Agricultural Sciences (among others) and indicates that establishing conserved nature areas is more obtainable by involving the public in the process of putting it under protection.

Quite a wide spectrum of nature objects are used as main tourism attraction sites, most of them being lakes and rivers, used mostly for active recreational purposes: boating, fishing and swimming. Together with other recreational areas (e.g. nature parks) these sites make almost half (44%) of all nature based tourism attractions. Rather popular are different interesting biotopes: natural forests, coastal meadows, fishponds, coastal lakes and mires, mainly as birding sites (Opportunities for ecotourism in Latvia 2012).

The seacoast is among the most popular tourism attractions. Nature trails and geological monuments like caves, boulders and cliffs gained increasing number of visitors and popularity (ibid). All these attractions are examples of sites with ecotourism values. What might be lacking at the time being are opportunities for more adventurous tourism activities.

4. Methods

Due to this study being conducted with the ambition to work as a form of tourist guide, the chosen locations have been selected with the help of a representative of Râzna National Park. This to ensure that the areas of biggest importance were covered and mentioned. The person that was helping to do this was our guide Irena Muskare at the Nature Conservation Agency, with a wide knowledge of the ecology and species of the park. The field work took place during five days between the 7th and 11th of May, with continuous sunny weather.

Six main areas where selected based on them being considered as some of the parks most attractive sites, both from a nature and tourist point of view. Some of the sites like Andrupene mire trail and the shores around Lake Râzna were visited by car transportation, while Lake Ezezers mostly was explored by foot. The six minor areas were documented, due to them being valuable to the total impression of the park. Although, time restraint did not allow for more specific inventories at these sites.

At every site biological diversity and recognised plant species was estimated with the help of.
measuring out sample squares, 1 x 1 meter. To do this I used a tape measure, loupe and botanical dictionaries. Though, since a very big area was covered in these five days, the species inventories made are consequently, not absolute. If there was a specific plant or species specific for the area, extra effort was made sure to register if it was present. Photos were also taken at every site to capture its trademarks and features.

Investigations of potential plans to enhance the positive qualities of the areas, like more information or logistic aids to get around the area, were noted. Studying of maps allowed the adding of information before and after the field work was transacted. Point assessment with binoculars and recording of birds with sound recorder at the different sites helped distinguish various species with support and supervision of tutor Bo Ekner at the University of Stockholm. Signs at the sites and information from the Nature Conservation Agency were also an important source to knowledge about the relevant areas, in terms of history and conservation work. Also, the number of visitors present was noted, to get an idea of the popularity of the site. There was also opportunities to talk to locals living in the area that had deeper knowledge and other perspectives of the visited areas of the national park, which proved useful during the fieldwork.

Visiting an area as big as Rāzna National Park makes it difficult to select, include and mention everything considered valuable since this is quite subjective. What is regarded as an extraordinary beautiful stand of forest with high biodiversity by someone can be perceived as an untidy and unkept piece of land which ought to be cleared up and the trees used as timber. This is the ambiguous thing about naming something “beautiful” or ”valuable”. Eventhough, since we are subjective beings with varying opinions, analyzing the visited parts of the park with something other than our senses is hardly implementable.

**Study area**

Rāzna National Park was established January 1st 2007 in the Rezekne, Ludza and Krāslava region of the central part of Latgale Highlands and covers the major parts of the Kaunata and Mākoņkalns rural municipalities’ territory (figure 2).

The area is 532 km², almost 60000 ha which makes it the youngest and second largest national park in Latvia (Daugavpils University 2012). It was created to protect the largest lake in the area, Lake Rāzna in its natural state and also its surroundings, including another 21 additional lakes. Partly for the biological value of habitat mosaic with deciduous forest, green pastures, wetlands and hilled landscape as for benefits within recreation and tourism.

Making the territory into a national park enhance the popularity for visitors and nature tourists and create a positive, sustainable economical influence on the 5000 inhabitants of the park. Almost 4/5 of the land constituting the park is privately owned. An aim is also to preserve areas like the national park with its characteristic farming landscape for cultural historic reasons and natural surroundings for educational purposes. As a result of ice covering and withdrawal approximately 16 000 years ago natural relief was formed as hills and lakes in the topography (Christopherson 2009).

Features in Rāzna national park is included on the EU list of important bird areas, with many of Latvias 344 species of birds present here (Official Latvian Tourism Portal) like bittern (Botaurus stellaris) and grebes (Podicipedidae), Flitter-mouse (Vespertilionidae), beaver (Castor fiber), wolf (Canis lupus), otter (Lutra lutra), wild marten (Martes martes) and many different amphibians are just a few more examples of inhabitants in this diverse territory.

The park has four differently protected regime zones; the nature reserve zone which has the highest level of restriction and is constituted mostly of the lakes and forest stands decided to be very valuable biologically. It is appointed to protect rare and endangered species but only 6 % of the park makes up the nature reserve zone (Irena Muskare, personal communication). Within this zone, requirements of general regulations concerning protection and utilization of specially protected nature territories are in force.

The National Park zone composes the largest part of the area where agricultural landscape and nature is kept for recreation although forestry (clear cuts not exceeding 1 ha) and farming is not prohibited. The landscape protection zone is established to protect the traditional landscape with special values and the last region is a neutral, uncommitted zone of approximately 5 % of the park
with no restrictions to make sure the evolution process of the communities and habitations in the park is not affected negatively by shortage of space (Daugavpils University 2012).

![Figure 2](http://likumi.lv/doc.php?id=147908)

5. Results

Places visited in Rāzna national park:

**Luznava Manor Park**

In Rāzna national park, Luznava Manor is the only place with a dendrological park and has high importance both cultural and historical. It was planned and constructed together with the manor over a 100 years ago, a 20 ha big landscape park containing over 40 species of trees, including oak, linden, spruce, larch, maple and many bushes. The park is considered very valuable because of the variation of different types of trees and their high ages. There are plenty of decorative arrangements of plants and bushes, including a big area with roses. Luznava park currently has over 10 ha of newly organised plants and bushes and rare species of trees still remain from the older days, like silver lime (*Picea abies *"Virgata"). Along the manors”red house” walls grows thuja (*Thuja occidentalis*) and in the south-eastern parts of the park is a well grown alley of larch (*Larix decidua*).

Used before as a school, the manor is now being renovated with the intention to lease it for weddings and other occasions. A submitted project proposal say that the pawns in the park will be renovated leaving 1.8 km of the nature trail wheelchair accessible, with gravelpaths and handrails, which makes the site easier to access for anyone no matter their conditions. There were around 20-30 people walking around the site at the time of the visit.
**Lielais Liepukalns**

Hill Lielais Liepukalns, meaning “great linden tree hill” is the highest hill in Latgale and the third highest in Latvia. This area has been under national protection since 1972 and is since 2007 one of eight natural reserve zones in Rāzna national park. The hill is included in a nature reserve zone of 21 ha which is completely protected from every kind of disturbance or deforestation, although in the surroundings clearcuts up to 1 ha are entirely legal. This place with its slopes and altitude differences contains dense coniferous-deciduous forests with birch, aspen, pine, linden, elm and hazel. Especially the two later have a very strong rejuvenation.

Last year a nature trail was opened by a cohesion fund, also building parking places and fireplaces. It is now also prohibited to drive any vehicle within the protected area. On the highest point of the hill, the problem of overgrowing vegetation and trees becoming so high that the view was blocked, has been solved by a year ago building a wooden tower where you now have full visual access to the breathtaking landscape. The beauty and tranquility of this place has contributed to one of the landowners planning on building a memory park where people can come and plant family trees and watch them grow over the course of time.

Lielais Liepukalns slopes with the broadleaf species meet the requirements of specially protected habitats in Latvia especially since in a majority of European countries hillside and ravine forests are a rare and endangered kind of environment.

The area has a rich flora and fauna with different kinds of fungi, lichen, insects, moss, animals and vascular plants. On the eastern and southern hillsides you find the most biologically interesting forests, partly depending on the dominating microclimate which is milder and more regular in temperature and humidity than in the lower parts. With water streams running down the hillside and the variation of shade make this area has an important mix of niches for a number of species like redbreasted flycatcher (*Ficedula parva*) and black woodpecker (*Dryocopus martius*) and many endangered non-marine molluscs like *Ena obscura*, *Clausilia cruciata*, *Macrogastra plicatula*. Also orchids and the rare moss species *Ulota crispa* and *Neckera pennata* grow in the hillside forest. (Irena Muskare, personal communication). At the time of the visit there were two families, a total of eight people present.

**Lake Rāzna**

Called the Latgalian Sea, Lake Rāzna is the biggest body of water in Latvia by volume (0,405 km³) and the second largest by area (57,564 km²). It holds over one fifth of the country's freshwater supply and 90 % of the freshwater fish species. The river Rezekne starts its flow from here and the lake has two large bays, Dukstigals and Zosna, whose six islands make out the nature reserve zone of Lake Rāzna islands, with Aspen Island being the biggest one (Irena Muskare, personal communication). The lake is at its deepest 17 meters and most of the surrounding is constituted of glacifluvial materials, hence the varied topography in this hilly landscape.

The lake is included into the Latvian list of salmon-like fish waters and most of the local tourist business in Kaurata local municipality is located on the banks of the lake, which has caused some negative impact in form of unsustainable activities, including illegal fishing and recreational pressures. The very clean and clear lakewater with its islands and reedy banks is a refuge for many birds who come to feed and mate here, for example crested grebe (*Podiceps cristatus*) and great bittern (*Botaurus stellaris*). There are several spots around the lake appropriate for bird watching, especially in the less cultivated areas and peninsulas around the northern parts of the lakes.
Figure 3. Picture showing Lake Rāzna within the Latgale border. From Rāzna.com.lv 2014. (http://www.kartes.lv/?wp=44&p=0&lg=2&sid=148)

Makonkalns hill

2 kilometers from Lake Rāzna and 248 meters above sea level lie Makonkalns hill and the old ruins of the medieval castle Volkenberg, built by German invaders to be used as a viewpoint. The first time the castle was recorded in history was 1263, which makes it the most ancient fortification in the order of Latgale. Ancient lats did not live in stone castles, possibly wooden castles where used for protection and to hide food and cattle from invaders. The castle had a trapezoidal shape with walls measuring over 60 meters long and 3 meters thick (Natural Conservation Agency 2012).

It is the only ruin in Rāzna National Park and on top of the hill are meadows with species indicating unimproved grasslands like cowslip (Primula veris), quaking grass (Briza media) and Geranium palustre. During the 30’s the area looked very different and open, now with large populations of juvenile birch and aspen growing on the site, eventhough it is regularly mown.

Makonkalns hill is divided in 7 parts, all privately owned, but is still included in the nature reserve zone, together with the castle and the biologically valuable forest biotypes on the slopes of the hill. The deciduous forest on the western and northern sides, consisting mostly of aspen and common hazel, has been found to have the highest rate of biodiversity. Here you can find yellow archangel (Galeobdolon luteum), asarabacca (Asarum europaeum), fern (Dryopteris filix-mas), stone bramble
(Rubus saxatilis), greater stitchwort (Stellaria holostea) and liverleaf (Hepatica nobilis).

Among these aspenwoods, a very rare and in Latvia specially protected lichen, Collema sp. has also been discovered together with other indicator species for natural forest habitat such as crown coral (Clavicorona pyxidata), blunt feathermoss (Homalia trichomanoides) and insects like Peltis grossa and Clausilia dubio (Nature conservation agency 2014). At the times we were visiting Lake Rāzna, there were few other visitors noted due to the vast distances, with the exception of a few cyclists.

Andrupene mire trail

This area was inhabited for a long period of time, the old buildings located above the mire now turned into a museum showing the life lived here hundreds of years ago. The Andrupen mire trail is 800 meters long and passes through forest with birch (Betula pendula) and alder (Alnus glutinosa). In the undergrowth there is hazel (Corylus avellana), rowan (Sorbus aucuparia) and bird cherry (Prunus padus), white and blue anemone (Anemone sp.), raspberry (Rubus idaeus), wild strawberry (Fragaria vesca) and cranberry (Vaccinium oxycoccos) dominate on the herbaceous. Further along the trail is a raised bog, poor in nutrients due to the only water being received is from precipitation. Characteristics here are specific plants adapted for permanent or continuous moisture, with accumulation and peat formation like Ledum palustre, Andromeda polifolia and Chamaedaphne calyculata.

Many species of Sphagnum sp. like S.fuscum and S.magellanicum grow rapidly and contribute to the dome-shape of the raised bogs. The Sphagnum can absorb water up to 20 times its own weight when dry and therefore absorbs water from the deeper layers of the bog, like a sponge. Another way to deal with dryer weather is to have small, wax covered leaves, like cranberry and cowberry, to reduce transpiration.

Raised bogs and wet forests of these types are very rare in Latgale and are included on the list of European protected habitats and the Andrupene mire is included in the nature reserve zone. Since it was rainy at the time we were at this site, there was only one family of three there.

Lake Ezezers and Pilori oak stand

Lake Ezezers is a very idyllic lake area of 987 ha with wetland forests, bays, sandbanks and 37 islands (77 ha) covered with broadleaf forest. This is the highest number of islands in both Latvia and the other Baltic countries, leading to protection of the islands starting as early as 1928, when changing water levels had then led to even more islands becoming visible. There are also a large number of island-like formations that are only accumulations of reed. On the largest island in the lake, Liela Laca Sala (Big Bear Island) is an old farmstead that was still in operation a couple of decades ago (Latvijas dabas fonds 2012).

A number of natural wood biotopes as well as specially protected plant beds with Cotoneaster niger, Cypripedium calceolus, Digitalis grandiflora and Lycopodium annotinum are found on the islands of Lake Ezezers, including strong populations of white stork (Ciconia ciconia), golden oriole (Oriolus oriolus) and several species of cormorants (Phalacrocoracidae sp). Coming closer to the islands by boat revealed stands of oak (Quercus robur), linden (Tilia cordata) and alder (Alnus glutinosa).

The shoreline stretches for 50 kilometers and the bottom of the lake, 21 meters at its deepest the constitution is mostly sand and gravel. Apart from some of the land being used for small scale
farming; the surroundings are very calm and untouched. The woods show signs of nonintense forestry, with ages and species being very varying. The water is clear and without the consequences of intense boat traffic, with stonewort (*Charales sp.*), pond snail (*Lymnea sp.*), freshwater clam (*Bivalvia sp.*) and many species of fish and amphibians. In Soviet times, this was a popular place for summer vacations, but now the old buildings and hotels are barely noticeable ruins and not many tourists come here. In the potential case of communities growing, care needs to be taken to avoid negative influence on especially on the water quality, since the agricultural sector is not overly updated. A simplistic way to prevent eutrophication by hindering emissions from farms and homes could be planting proper tree barriers by the lake borders (Brainerd 1982), something which is now missing.

On one of the peninsulas is a 19 ha, natural oak tree stand with a complex of species of broadleaf woods is situated on the banks of Lake Ezezers adjacent to the border of Ezernieki and Andzejli local municipalities. The area has been protected as a botanic nature reserve since 1977, together with another oak stand. 100 year old oak trees are dominating in the tree level, mixed with dense bush levels of hazel (*Coryllus avelllana*), spruce (*Picea abies*), birch (*Betula pendula*), bird cherry (*Prunus padus*), rowan (*Sorbus aucaparia*) and fly honeysuckle (*Lonicera oblongifolia*). Fortunately there are also new oaks growing on the area, but many of the plants do not exceed even 15 years. The gap in age between the mighty giants and these small juvenile is substancial and the lack of middleaged trees obvious. This could be a problem in the future when the older oaks start declining. An idea for the maintainance of the stand is further clearing of some of the dense shrubbery, cut the grass yearly and make sure the oaks are allowed enough space and sunlight. The near surroundings also have potential to be an attractive oak grove and increase the space of this idyllic spot.

Purple dragon (*Lamium maculatum*), bitter pea-vine (*Latherys vernus*), white sanicle (*Ageratina altissima*), greater stitchwort (*Stellaria holostea*) and liverleaf (*Hepatica nobilis*) are dominant in the shadier places, mixed with lily of the valley (*Convallaria majalis*), blueberry (*Vaccinium myrtillus*), and bracken (*Pteridium sp.*). Also found are *Anemone ranunculooides*, *Viola riviniana* and *Anemone nemorosa*. The birdlife on the site is abundant and after visiting the oak stand, some of the birds that were identified were *Fringilla coelebs*, *Ficedula hypoleuca*, *Phylloscopus sibilatrix*, *Parus major*, *Carduelis carduelis*, *Turdus iliacus*, *Oriolus oriolus* and members of the *Picidae* family.

A resting place with tables and a fireplace is set up by the banks of the water and there are plans of building a bridge-deck. Park inspectors are the ones responsible for maintaining the area and keeping the sites clean. At the time of the visit there were at least five families present, using the benches and tables and walking around.

**Other sites of interest**

A few places only visited very briefly are still mentioned here to demonstrate the variety of spots in Rāzna National Park worth a visit for the nature interested, a few examples are:

**Lake Salajs** – Nature reserve zone with one of the bigger lakes in the park with 9 islands and large areas of undisturbed decidous forest. Parking spaces, signs and a 10 kilometer walking trail has been erected, all to promote the location and make it attractive to visitors. Here is also a good place for bird watching, with a micro reserve for mating osprey (*Pandon haliaetus*), sea eagle (*Haliaeetus albicilla*), swan (*Cygnus olor*) and black stork (*Ciconia nigra*).

**Glacial erratic rocks** – Close to Jaunstasuli are two massive blocks of granite, something together with cliffs and caves are considered as something very rare and valuable. In Latvia stones like these are holy and have often been a place to come for sacrifice, worship and mollify the gods (Official
Rāzna National Park – excursion destinations

Latvian Tourism Portal 2009). At this site, with the blocks approximately 100 meters apart, also grow *Geum rivale* and *Euphrasia stricta*.

**Lake Bizas** – Here grow old stands of very valuable linden (*Tilia cordata*) trees in the beautiful surroundings. Unfortunately, due to conflicts and protest from the two land owners in the area, complications in the process of turning it into a nature reserve zone has arisen and is still being dealt with.

**Luznava pagasts (territory)** – Large quantities of semi-raised bogs and a rich birdlife makes this territory worth a visit.

**Pottery** – The potter of Kaunata parish farm Akmenisi invites to an excursion to a brick kiln.

**Bicycling** – Many of the mentioned places are excellent to visit by bike, also a good way to enjoy the idyllic sceneries. They can be rented in most villages and basically the only thing to beware of is that many of the farms have one or several dogs, often very eager to come and greet travelling visitors.

6. Discussion

Foot (2004) describes the tendency of how the preferences for leisure activities often leads to an increase in demand for recreational use of public lands, as in the case of Rāzna National Park. Over the past years ecotourism among tourists, from both Latvia and abroad, have become increasingly popular, which offers opportunities to further increase in the visiting rates of the park. Ecotourism is attractive in Latvia because of its low population density, yet highly developed infrastructure (Meeting Latvia – guide to the Baltics 2014). This has become apparent during the visits to the various sites, that eventhough there is room for improvement, like in the case of accessibility around the shores of Lake Ezezers, most roads and signs in the park are functioning well.

There is a big potential in the different ways tourists could enjoy the various habitats dominated by forest in the park, since it has been shown that some of the most appreciated enviroments to spend time in for leisure are different habitats of forest (Bergil et al. 2004). If more people were aware and could enjoy the beauty and variety of the woods around Makolnkals and Lielais Liepukalns this could mean further progress in the work of making the areas of Rāzna National Park less exposed to profit eager forestry, run by the state or private corporations.

According to the Law on specially protected nature areas, mainly National and Nature parks, Protected Landscape Areas as well as nature monuments are designated mainly for tourism development. One of the things that became most apparent during the field work, was the low frequency of both park visitors and locals. There is at the time not a very high pressure of people in the general park area. This is both positive and negative, the nature values are not over loaded and strained, on the other side there is not that much public attention as there could be about the worths of the park.

As of now eventhough there has been several achievements for Latvian nature conservation, it is not a major priority for the government, lacking will, proper information and much needed research (Irena Muskare personal communication). Systems created to aid and help the work made to protect nature often fall short due to unsufficient human and financial resources. The high percentage of privately owned land in the park leads to farmers not wanting areas protected, since the compensation system does not make up for their financial losses. By law, the one who sets of land for nature conservation
purposes should be compensated, but the law has since 2009 been constantly postponed. Lack of management plans and funds as well as the absence of appropriate control in protected areas leads to degradation of natural values (Opportunities for ecotourism in Latvia 2012). Several cases when management plans for protected areas have been worked out to facilitate tourism development forget to secure further conservation of certain species or habitats. Underdeveloped signs, marked nature trails and bikeways as well as lack of proper park administration, maps and guidebooks on protected areas and wildlife are main direct obstacles for the development of nature-based tourism (Ibid). In some places of Rāzna National Park, there is quite a bit of improvement to be made when it comes to orientation of the area, especially as a non Latvian speaker. You are not always aware of how to find your way and access to public restrooms and waste disposals is often scarce. Then again, from a bigger point of view, the slightly non-adjusted way you can practise being a tourist here is a big part of the charm in spending time in the national park.

There is the obvious contradiction of any commercial venture into unspoiled land with or without the "eco" prefix. To generate revenue you have to have a high number of traffic, tourists, which inevitably means a higher pressure on the environment (Kamauro 1996). In the planned framework is that ecotourism should promote both conservation and development at the local level (Scheyvens 1999) which with the right methods can be possible for Rāzna National Park. There is a trend to promote tourism in areas relatively untouched, as would be the case in Rāzna, the problem is to unify economic benefits with a sustainable environmental care if we do not consider our use of nature as a part of it, but apart from it (Ricklefs 2008).

**Personal conclusion**

After visiting Rāzna National Park, there is no doubt that the area certainly possess a great deal of environmental factors considered attractive from a tourist point of view. There is tranquility in the rurality in the mosaic of green meadows, woods, fields and arable land, which brings the feeling like time has truly stood still.

Clean air, beautiful landscapes and relaxation of the mind to reside in places such as these are as mentioned before ecosystem favors virtually impossible to label with a set value. The lats you meet are few and basically no one speaks English, but they are still friendly enough. Coming from Sweden, we are spoiled with agricultural nature and idyllic scenery, but in these cases, Latvia is taking it one step further. The balance of having a profitable, working tourism sector and still keeping the values of the pristine, calm surroundings is a challenge, but could certainly be done if time is given to work on guidelines and consideration, not letting maximum profit be the dominating factor.

This is often the case when it comes to uniting forestry and protecting valuable areas. In one of the areas in the park, two fellow students worked with making an inventory on a forest stand showing high nature values. It turns out though, that this area has been left in peace only because the paperwork to cut it has been taking so long. The problem for many other areas is that the needed inventories are not executed and proof of nature value rarely reaches the people making the decisions. Hopefully this will improve in the future, perhaps through the educational influence the diversity and beauty that protected areas harbour.

More information regarding projects, costs and maintaining current tourist sites is needed, especially since it is possible profits from increased number of visitors make up for the means spent on information to a broader public. Helping the current staff by adding more educated manpower would be a wise long-term move in the future prospect of Rāzna National Park. Disadvantages of too high rates of visitors or construction often turn out to be lessons learned the hard way and is a risk Latvian
tourism-industry should take every precaution to avoid. Many of the sites visited in the park owe their unspoilt and pristine appearance to the fact that these grounds are not strained by large quantities of tourists. With increasing numbers, logistics concerning roads and trails are also put in higher demand, with the wearing being heavier. On some of the spots with a sensitive forest floor, like Pilori, footbridges would make it both more accessible and merciful on the surroundings. On the shore located sites, which would be very attractive for birdwatchers, roofed out-looks could be erected in consideration for the wildlife to try and restrain human impact.

The best scenario would be if the nature of the park and the interest from people wanting to experience it is what finally results in it being preserved in a sustainable way for the future and to the gain of the inhabitants living there. To have an impressing ecosystem as well as socio-cultural values combined with consideration and tourism equilibrium is something worth striving for whether you work in City Hall or on a field.

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Här följer nu på svenska den naturguide som var tänkt som en sammanfattning av examensarbetet om Rāzna national park.

**Utflyktsmål i Rāzna nationalpark, Lettland**

**Luznava herrgård**

På denna 100-åriga herrgård finns en kulturhistoriskt intressant dendrologisk park med över 40 arter träd och buskar, flera med hög ålder. Här finns vackra planteringar av rosor, nyttoväxter, lärkalléer och flera dammar att promenera omkring och titta på.

Själva herrgården har använts både som bostadshus och skola men är nu under renovering för att hyras ut till bröllopsfirande familjer. Gångarna i parken ska renoveras och utrustas med naturstigar som är handikappanpassade, med grusgångar och ledstänger för att underlätta för alla som vill komma och njuta av lugnet och skönheten i parken.

![Vy över herrgårdsparkens sjö. Bild: Mimi Zandén](image1)

![Lärkdunge. Bild: Mimi Zandén](image2)

**Lielais Liepukalns**

Denna plats som på lettiska betyder ”Stora kullen med lindarna” är den högsta kullen i området Latgale och den 3e högsta i Lettland. Kullen har varit naturreservat sedan 1972 och dess bördiga sluttningar med skuggig lövskog är lummiga och mycket artrika. Här trivs lavar, mossor och kärlväxter i mängd, även en mängd sniglar och fåglar som t.ex. mindre flugsnappare och spillkråka.

Förra året öppnades ett ordnat promenadstråk genom skogen upp mot kullen, även med parkering och platser för lägereldar. Innan växte sig träderna på toppen av kullen så höga att man låt bygga ett högt trätor, där nu utsikten över böjlade kullar och lummin skog kan beskådas. På denna rogorande plats planeras även en minnespark där familjer kan komma och plantera träd för att se dem växa upp under kommande generationer.
Rāzna sjön

Denna vidsträckta sjö är den näst största i hela Lettland med flera vattendrag som börjar eller slutar här, som floden Rezekne. Nästan samtliga av landets sötvattensfiskar trivs här, vilket mycket av turismen runt sjön är centrerad omkring. Vattnet i sjön är rent och klart, med steniga eller grusiga bottnar. De många öarna, kobbara och vassruggarna i området gör detta, liksom många andra lokaler i nationalparken, till en fristad för häckande fåglar, som rördrom och olika sorts doppingar.
Makonkalns kulle

248 meter hög ligger Makonkalns kulle och de gamla ruinerna efter slottet Volkenberg som byggdes av tyska erövrare för den förmånliga utsiktens skull. Det är den enda ruinen i Rāzna nationalpark och följer man trapporna upp på kullens topp där den står, finns spår av gamla, öppna betesmarker i form av darrgräs och gullvivor. På kullens sidor, bevuxna med björk, asp, hägg och hassel finns många sällsynta växtarter, lavar och insekter beroende av död ved i olika nedbrytningsfaser.


Andrupene myr

Det här området var under lång tid bebott och de gamla restaurerade boningshusen kan betraktas för att få en känsla av hur livet såg ut här, för hundratals år sedan. Genom myren går ett promenadspår, 800 meter långt, och passerar skogspartier med björk och fläder. Buskvegetationen är tät med hallonsnår, smultron och olika sippor.

Sedan når man myren, med sin speciella miljö med förkrympta små träd, tjocka vitmosseskikt och färgskiftningar i grönt och grått. Näringshalten är låg eftersom myren bara får sitt vatten från nederbörd som faller i form av regn och dagg. Detta gör att de växter som lever här, som tranbär, rosling och finnmyrten, är specialanpassade för dessa förhållanden.

Denna typ av habitat är ovanlig i Lettland och är därför klassat som naturreservat.

Ezezers sjön och Pilori ekdunge


Omgivningarna är till stor del jordbrukslandskap med liten verksamhet och mosaiken med små åkrar, dungar, ängar och dammar ger en romantiskt lantlig känsla. Vattnet i sjön är rent och klart, med kransalger och många arter av vattenlevande djur som lever här. Detta delvis genom att ingen motorbåttrafik är tillåten.

På en av sjöns halvöar, Pilori, finns ett vackert parklika område med örtrika gräsmarker där hundraåriga ekar växer tillsammans med hassel och hägg. Här bildar vårört, blå- gul- och vitsippa, liljekonvalj och skogsviol en matta på marken, särskilt tilltalande på våren. I träden sjunger rödvingetrest, steglits, sommargylling och grönsångare och det finns en brygga och rastplats precis vid vattnet.
Fler platser värda ett besök

Salajs sjö – Natursavvakt med en av de större sjöarna i området, med vackra öar och tät ostörd lövskog. Parkeringsplats, skyltar och ett 10 kilometer långt vandringsspår har upprättats för besökarnas skull. Här finns mycket fågelliv att betrakta som fiskgjuse, örn, svanar och svart stork.


Bizas sjö – Här växer i omgivningarna gamla, värdefulla lindar och det finns planer på att upprätta ett natursavvakt så fort problem med markägarna har löst sig.

Luznava pagasts (område) – Detta territorie har mycket myrar med ett rikt fågelliv vilket gör det väl värt ett besök.

Krukmakeri – Krukmakaren på gården Kaunata i Akmenisi visar gärna sin kalkugn och här går att pröva både skulptur och drejning.

Cykeltur – Flera av de nämnda platserna i parken går alldeles utmärkt att besöka genom att färdas med cykel. De går att hyra i flera av byarna och är ett utmärkt sätt att verkligen få en bild av de sköna omgivningarna. Var dock uppmärksam på att många av de små lettiska gårdarna håller sig med hund som gärna kommer ut och hälsar på sitt ganska högljudda vis.