

"Nature Trail in Krylow.  
By the River Bug Area of Protected Landscape ".

Author. Marta Krupa

"You have to teach people to earn recognition not from books,  
but from the sky, the earth, from oak and beech "  
J.A. Komeński

#### Admission

Most of us live in the densely populated and built-up world.

Therefore, we want peace, contact with nature, but to make it we do not need right away to go to distant outskirts of the world. To see in the remnants of untouched nature, you can choose to go over unregulated and undeveloped the Bug river bed. The meandering river and the wide valley always delight at any time of the year. The landscape is particularly attractive early in the summer, when the multicoloured carpet of meadows contrast with the blue of the sky and lush greenery of Bug's brush. A careful observer will find a wealth of plant and animal world.

To meet the educational needs I developed a "natural path in Krylow. By the River Bug Area of Protected Landscape ". I wanted environmental education in school to be not only classes in the desks and only theoretical knowledge, but concrete actions in the environment and for the environment and field classes are a form of work, which meet with particular interest among students and teachers. "The organization of teaching and learning biology contains important aspects of education, activity targeted at young people, in order to implement the rational, efficient and ethical action. "(MEN.1998).

The basis for teaching biology is the observation of nature and the direct contact with the natural environment. Thanks to this pupils learn plants and animals, and their mutual interaction.

Acquainted with the protected species, the human recognizes pressure on the environment, develops perceptivity, ability to pay attention to the intrinsic qualities of the building, processes, the phenomena of life of plants and animals

Characteristics of the project

"You have to teach people to earn recognition not from books,  
but from the sky, the earth, from oak and beech "

As J. A. Komeński suggested - the duty of the teacher is to create such students position to independently reached the certain truths, principles, and able independently draw appropriate conclusions. School age is a period in which young people want to extend their knowledge and to develop their passions, my suggestion gives them such opportunities. Another aspect create a path of ecological -environmental are natural values. By the River Bug Area of Protected Landscape. A valuable wealth here are meandering river and the wide valley of the Bug, the qualities I described below.

Notes on implementation

"Nature Trail in Krylow. By the River Bug Protected Landscape Area "

It will be implemented in the school year in teaching biology in the school gymnasium as Outdoor activities.

I developed a nature trail around the village is a great place Kryłów tours of nature, which can be conducted along the route in 5 hours, or you can arrange separate lessons on the various stops depending on the season and implementation phase of the curriculum. The route is 2.5 km. It consists of five sections where the diversity of forms and objects provides the ability to implement the program and many issues enables cross-correlation.

I present the proposal to the script field trip covering the whole route of the trail natural and suggestions for tasks to the card the students' work. Implementation of the following tasks proposals depends on the individual learning needs of the class, which is closely related to the implementation phase of the curriculum and the season. Therefore, I suggest choosing adequate to the needs of the following tasks timesheets

Location of village of Krylov.

Characteristics of the natural environment

The area in which is located place Krylov lies on the southern edge of the Hrubieszowska Basin.

Valley Hrubieszowska - mezo Upland Zachodniowolynska established in the zone a little resistant chalk marl and is the eastern extension of the vale Zamojski. Basin intersect across the Bug and Huczwa, flows into it below Hrubieszow (J. Kondracki1988).

Krylov is 50 ° 41

I N latitude and 24 ° 03

And E longitude. The time difference

the sun between the place and London is 1 hour and 36 minutes. Height

of the sun on the vernal equinox and autumn are 39 ° 4

AND

While June 21: 63 °,

December 22, this value is 16 °.

Krylov lies at an altitude of 190 m. above sea level, while the Bug River at a height of 179 m.

above sea level so we can find observe wide valley surrounded by over LOM slopes (Fig.

1 and 2).

Bug is a tributary of the Vistula and belongs to the catchment area of the Baltic Sea. The river in this area is national border, separates Poland from Ukraine. It is one of the few European rivers

primitive, almost undeveloped and unregulated. The highest water levels in the river are in March and April, that's when we have the possibility to observe a wide flooded valley

Bug, which is visited by many a passing flock of birds.

Krylov area are surrounded arising on loess chernozem and fen soil. Chernozem and alluvial soils

It is a very fertile soil, giving the possibility to carry out a variety of crops. In this area

dominated by cereal crops and sugar beet.

On the discussed area is January the coldest month and the warmest July, which is also characterized by the highest rainfall. Average annual temperature is

7 ° C, while the annual temperature range is 23 ° C.

This area has a quaint atmosphere. They give of themselves from the features of the continental expressed

long duration summer and winter (one hundred days). The sun shines here more often than in the rest of

Poland, because the number of sunny days and cloudless amounts to an average of 50 days (with the exception

Roztocze - the number of sunny days, 5 days longer). In winter it is not uncommon to find a big frost,

and the high summer temperatures.

Climatic conditions, hydrological and fertility soil created a veritable mosaic of diverse habitats,

where there are a variety of communities.

Place Kryłów is located in the zone of protected landscape, which has been designated by

Regulation No 2 of the Governor of Zamosc on 20. 01. 1997.

The purpose of this regulation is to ensure the ecological balance of the area

11970 hectares. We are interested in the area consists mainly of aquatic ecosystems, rush, grasslands

grasslands and valleys of the Bug, which is the mainstay of valuable flora and fauna, especially water - mud.

Unregulated and undeveloped river bed, meandering river and the wide valley

always delight at any time of the year. The landscape is particularly attractive in high summer, when

This multicoloured carpet meadows contrast with the blue of the sky and lush greenery ' By the River Bug ' thicket. A

careful observer, even when walking perceive the richness of the world of plants and

animals. There muskrats here, and along the streams can observe traces actions

the country's largest rodent - beaver (felled trees and firewalls) . We can meet are also vole

hamster, mouse scrub and slender nimble ermine. Sometimes we see the valley of the Bug

hunting hawk or almost suspended in the air waiting for their prey -

kestrel. Dirt road " clarion " we will be gray wagtail, fearing for their offspring hidden in the

hollow ground near the path, and with small groves and bushes interesting to look at

We will magpie.

Surroundings of Krylov have large natural values, I would like to coapt students during

field trip on the path of nature. The proposed trail runs around

primary school in the village Krylov. The route is 2.5 km. It consists of five stops.

representing the interesting and diverse natural objects that give a chance to the implementation of many issues of program in an interesting way.

In order to increase the attractiveness of the march during the observation, and especially

forms of small size, it is necessary to take your special equipment. It should be

so equipped a pair of binoculars and a magnifying glass for a few times magnification. Very useful will

guides, atlases and keys, allowing identification of species of plants and watch animals. To prepare notes from field observations that they will take any necessary notebook and pencil, while helpful for documenting the observation of a camera.

nature trail

Krylov

1. Stop area school

- White stork nest,

Stop 2. The activities of "engineering" beavers.

Stop 3. Island on the Bug

- riverbed,

-Life in dead wood,

-ruins of the castles (ruderal plants)

Stop 4. Stand.

-mistletoe

Stop 5.

- flooded meadow

1. Stop campus.

Nest of white stork.

Storks are beautiful and majestic birds. Of all the European countries most liking Poland itself, and it is their most (R. Kucko 2001).

The white stork is a large wading bird with black and white darts. It has long red legs and equally exceptional beak. Only the young have a beak and black legs. The body of a stork reaches length of 80 cm, breadth of wings is 200 cm, the wing is composed of 56 to 62 cm, while the tail It reaches a length of 24 - 26 cm. The body of a stork weighs an average of 3000 - 4000 g (J. Stanek 1976). Storks to settle choose moist places, rich in water reservoirs, where it is easy to attain basic food - Invertebrates, fish, rodents and frogs. Place Krylov lies on the Bug, the unregulated riverbed winding blue ribbon every year floods in early spring meadows wide valley.

It is here that the storks are the ideal conditions for foraging. Here we can see in these dignified walking birds, which on extensive backwaters looking for food.

Originally storks nested in the deep woods, on the trunks or thick branches

old trees. In our area where the stork is considered a symbol of happiness and

"Provider children" took the habit to establish nests on rooftops, chimneys houses

and electric poles. Undoubtedly contributed to the setting by the people

artificial foundations for a slot in the form of for example the old wheels of cars.

The village lay in its many storks nests. Only along the main street of the village

the length of 2km. located there are 11. One of them can be observed next to the school building.

It is clearly visible and gives the possibility of accurate observation of the socket and its residents (Fig. 3).

At the turn of the III and IV of wintering returns first male which occupies the old nest and defends it against intruders, sinking sometimes bloody struggle. After returning female storks celebrate

ceremonial welcome whose main ingredient is rattling. Clicking beak stork

First raises his head up then fling her on her back, to at last pull her away

ahead. This is a very spectacular show. In the following days the pair together

build old nest, which after many years of the creation of several hundred kilo

tower - a perfect place for the stork family. Here, the slot appears in June of 3 to

5 eggs, which pair together incubates for 33 days (E. Zimmer 1994). The chicks in the first days

life are fed " light " earthworms (J. Hanzak 1976). I constantly guarded by

one of the parents protect them wings spread wide against rain, cold and

heat. After 60 days of pampering the young become independent, which declare all flapping wings (E. Zimmer 1994).

The white stork is a bird of passage, for whom Poland is the only breeding grounds.

At African winter camp storks migrate two routes: south - west,

by Gibraltar to West Africa and south - east through the Bosphorus

and the Persian Gulf to the eastern and southern Africa (E. Zimmer 1994).

Hiking is a huge effort that can only survive strong and healthy birds because

road length of 8,000 km storks are staying within four months, beating

day up to 200 kilometres (J. Stanek 1976). Storks in flight paddle perform an almost two strokes per second wings, therefore birds book

search for rising currents to gain height and move within the right direction. The birds thus save up to 95% of energy, but can fly only a few hours per day, when the appropriate conditions prevail (R. Dejrowski 2002). At the destination, when in our country blow winter wind, storks enjoy the warmth and abundance of food in the south Africa.

Crow's nest is also home to other birds. Lodger stork happens

Sparrow. Already at the end of March at our slot, we can see in a couple of sparrows laboriously lifting the blades of grass, feathers and everything that is suitable for nestling a nest. Sparrows as opposed to the hosts held from 2 to 3 broods from the fourth to VIII. Like the storks both parents incubate the eggs together and care for offspring by about 16 days (E. Zimmer 1994). During this time, we see the bustle parents assiduously abolishing food for hungry children.

Stop 2. The activities of "engineering" beavers.

Among the fields and meadows, where a small stream flows into the mighty river can observe traces of Business Europe's largest rodent - beaver.

The body of the European beaver weighs between 13 kg and 36 kg, reaches a length of 90 to a maximum of 140 cm. His massive body and stocky goes almost without checking the neck with a small round head.

Beavers are distinct from any other animals, flattened tail, covered horny scales, between which rarely grow hair (W. Żurowski 1992).

The tail is an important element of the morphology allows adaptation to life in aquatic and terrestrial environments.

Beaver habitat requirements are very diverse. In our case we inhabit seashore small stream overgrown with willow, alder and birch. The quality of the water does not play role, but it is important constant access to it, because beavers are amphibious animals. On land are clumsy and slow, but perfectly adapted to life in water. Such a lifestyle

They help them:

- The front ends of deft and gripping the back - strong, with massive fingers tense membrane,
- Flattened tail, covered with scales, acts as a rudder in the water and on land - support,
- Transparent third eyelid and skin folds closing the ear canal and nose,

for working under water up to 15 minutes (W. Żurowski 1992). Characteristic for

Beavers are also two pairs of large incisors covered with orange enamel.

Beavers are active all year round and do not hibernate. In the winter, they swim under the ice and They feed on in the comfort of your den. Their daily cycle increases slightly and is compatible with the clock biological. These animals are less active, but in warm weather can occasionally scavenge on the surface. As the ice melted and the lengthening of the day, their activity up increases and begin marking the site secretions bags tuning with the scent of musk (R. Dzieciółowski 1996). The peak of activity falls at the time of raising the young, and the spring autumn when gathering food.

Beavers are herbivores. They eat almost all species of plants and coastal waterways. Will meet spring, summer and early fall primarily feed on herbaceous vegetation. Starting of October intensively cut trees and shrubs, storing them for the winter. They prefer the bark of aspen and willow. As you can see on our stand beavers cut down many trees close to the shore because distance to the water, and hence the effort for the transport of wood is present (Fig. 4 and 5). FROM trees lying on the ground beavers, first cut off the branches with thin bark, and later take trunk to bits. Beavers copy on the banks of reservoirs burrow or build houses in the shape of mounds of mud, clay and brushwood. Sometimes they reach 2 - 3 m. height. The entrance to the house (lodges), in which the whole family inhabit is under water. Beavers are monogamous, as already mentioned they live in families. A typical family consists of multiplying a pair of parental young this year and the young from the previous year - a total of 4 - 10 individuals (R. Dzieciółowski 1996). Between family members there are strong ties. They are strengthened by the common fun and care for their young.

On our stand we observe characteristic of these animals ability to build dykes, whose aim is to raise the water level (Fig. 6). The material used for construction is primarily wood. The activities of engineering is called the need to ensure security itself, and the entire family.

During our wanderings along the stream there is very little probability that we meet a beaver, because these animals avoid human settlements and lead an active life at night. Therefore, we affirm the presence of this area only by beavers the results of their work.

Stop 3.

Island on the Bug River.

The next stop is located on the island of Bug, which actually ceased to be an island, because in 1987. On the one hand, it was joined to the mainland by a causeway, and the second wooden bridge (J. Górak 2001). It is a very picturesque place. Increased PART island is low and flat, covered with meadows and thickets. Remainder of Ostrorog castle located in the top raised, south - western part of it, falling to the leg Bug, steep clay slope.

Preserved here the walls of massive corner towers, extensive cellars and the remains of walls resistance (G. Rakovsky 1996) (Fig. 7). It stretches with a beautiful view of the north, vast meadows and the twists and branches of Bug.

Riverbed.

It is on the island along the soft edge of the Bug, we see the old willow trunks cracked (Fig. 8). Many of them are fallen, overgrown with moss and lichens, some are just above the water surface (Fig. 9).

Trees accompanied by a number of plants typically coastal, growing partly or almost completely under water. Particularly common in the coastal zone of rivers include the plants as common loosestrife, water mint, Eupatorium Cannabinum, forget-me, Alison Water grandmother, usually encountered in the company sieve leg Bug River just off the causeway.

Construction of the dike in 1987 contributed to the creation of new habitat - old river beds.

Oxbow lakes, or lakes under river arise naturally when two bends of the river tightly to each other they will approach and then merge interrupting the narrow strip of land. As a result of river straightens its course and simultaneously formed lake przyrzeczne. Riverine lake has elongated, slightly sickle shape. Their standing water, only periodically powered by Flood waters of the river, are characterized by a high content of organic compounds.

Accordingly, the old river rapidly soiled and gradually shallowness. process accompanied by overgrowing lush and varied vegetation (Podbielkowski and Tomaszewicz 1996). Right here, in the coastal zone, we see: Broadleaf Cattail, bulrush Lake, Sparganium erectum and ordinary sweet flag, and on the surface we observe large clusters of eyelashes petty.

Calm water branch of the Bug on the causeway are home to many insects. here we see beetle - great diving beetle, which periodically must flow on the surface water to breathe air under the cover leaf.

After the surface of the water rushes sliding motion resembling a fast rowing; Gerridae. At the bottom, near the shore, between the rocks and the mud live leeches, immature forms different insects including caddis larvae, build characteristic cottages with particles of sand, pebbles and plant debris. You can meet here also snails. Places these are also used by the common frog and toad gray during reproduction (Fig. 10).

Standing water is a good place to make jelly screech.

They float above the surface of the water already in May the representatives of the family dragonflies for example emerald damselfly.

In the observed area of the Bug river meanders gently, according to the terrain. On Winded bends like a rapid current cuts ashore and causing landslides that builds it material. (Fig. 11). In this way, a high shore, while his opposite side, edge flat and low (Fig. 8).

Life in dead wood.

We pass by a dead willow trunk, which is a perfect object of observation natural.

Clinically dead tree still "works" for life on Earth. When it was alive, tirelessly solar energy has transformed into a complex, life-giving organic matter, releasing the the atmosphere large quantities of oxygen. After the death while sheltering in their decaying tissues of various forms of life and the environment gives valuable substances and humidity of still contained in the wood.

When a tree dies, it releases into the atmosphere many volatile substances, which immediately luring

insects. Some species of beetles can sense them and rush to settle in the new site. In this microenvironment grow and protect against predators. longhorn beetle lays eggs in natural wood crevices and cracks, and nothing but the bark beetle family gnaw intricate system of pavements and in their hollows endure eggs. Hatched larvae derive necessary to grow food, greedily eating the wood tissue. Some birds such as woodpeckers, can hear "noise" of busy eating larvae and their strong beaks pluck out tasty morsels from their hiding places. The bark of the observed tree is covered in some places thick turf and moss lichens, which provide shelter for ants, nematodes, mites, spiders and many others organisms.

At a time when the dead tree teeming with life of other organisms, many substances begins the process of distribution. Cellulose is the major source of carbon in the soil, but not the majority of living beings is an enzyme that would enable its digestion. That is to release energy accumulated in tissues wood care some specialized bacteria. They break down cellulose, releasing among others Carbon dioxide, nitrogen and ammonia.

Fungi may play a significant role in the process and at the same time are themselves food for many insects (J. Reichholf 1999).

Currently studying the slots in the trunk can be seen crawling worm, as well as nest of spider which lurks in to take his future victim by surprise. The presence of many forms of life attracted to dead trees also larger animals. It is possible that on warm days see basking sand lizard on the trunk.

Finally, it should also separate rotting leaves and lift up pebbles, lying next to the trunk. At a bit of luck we can see in: curl common, *Oniscus marginata*, that fear before us curl up into a ball the size of a pea, also see winds or similar Pseudoscorpion shellfish.

The ruins of the castle (ruderal vegetation).

A huge role in the formation and development of new habitats plays OPERATIONS human. Changed or molded into new habitats create the conditions for such species that naturally emerging ecosystem mach would never

They have installed (Z. Podbielkowski 1995). Such specific anthropogenic habitats are, for example. roads, przepłocia, przychacia, fields, garbage dumps, ruins and rubble. Such places It characterized by the diversity enormous mechanical, chemical and high contents of substances zasobność in organic nitrogen compounds. Therefore, among the newcomers in such places a lot of plants are noxious species ('liking nitrogen') (Z. Podbielkowski 1995). Flora these places are so clearly reaps selected. Because the distinguished Ruderal plant communities, that is, those that arise in habitats heavily modified by man.

A typical ruderal flora we observe at the foot of the castle walls Ostrorog, where it forms a substrate rich in nitrogen compounds, providing excellent conditions growth of many species. We see here include stinging nettle, greater celandine, shepherd's purse and species of mallow and goosefoot.

Remains of walls exposed to sunlight willingly overgrown: Artemisia

Common milkweed and Ordinary y. Here, too, we can meet mullein, which thanks bright yellow flowers rarely go unnoticed and create a beautiful contrast with the blue - purple bunches of flowers serpentine. Equally often we can meet here: maillot white, wild carrot ordinary, coltsfoot, spear thistle, *Cirsium arvense*, cowslip, *Lychnis ragged*, woolly burdock and *Euphorbia Cyparissias*. The ruins of the castle is covered with a black and blackthorn creates thorny scrub defending access to cellars and blackberry, descending from the walls of the tower to the river.

Stop 4.

Stand.

On the way back, starting from the valley of the river we pass on the left side of the high embankment.

At the moment, the slope inhabited by ruderal plants, among which dominates neglected mallow, plantain, pigweed white, and at the foot of nettles is also mugwort and *Rumex obtusifolius*.

In some places the slope is exposed and can observe fragments of basement and walls of old houses - witnesses of past history.

Escarpment formed as a result of the construction of the access road through the valley of the river to the bridge.

In the past, in this area there was a compact construction of houses and a grocery population Jewish. However, as a result of actions of war buildings completely destroyed, and after the war area planted trees. It was created in this way stand 0.5 ha, which is dominated by tree quick growth: black poplar, willow and poplar trembling. These are pioneer species, quickly growing on the surface, spreading through air-borne light seeds.

The stand is taken into the care of residents who care to have a character of the park. The bark trees we see in many of the growth occurring Hiking frondosa - kestrel Blistering. By contrast, rotten wood are numerous: *Cladonia fimbriata* and *Cladonia floerkeana*. Lichens are biological indicators of air quality.

Different species have a certain tolerance to air pollution. The fastest die arboreal lichens on thallium of shrub, the more resistant they are some of the lichens frondosa, and the most resistant species are of thalli crusty and mealy. Therefore developed 'scale lichen', for examining the health condition of the air.

Mistletoe.

In the autumn - winter period, among the treetops, we see a very large cluster of mistletoe (Fig. 11). Dwarf mistletoe is a parasitic on trees has branched system of nozzles, which draws water and minerals from the host, and by their own green sprouts and leaves alone assimilates. Mistletoe has a distinctive, uniformly fork branched stems. The leaves are leathery, narrow-egg-shaped, entire edges and cold-resistant. In February and in March produce the leaf axils tiny, inconspicuous yellowish flowers (A. Wierzbicki 1989). Mistletoe produces seeds surrounded by sticky pulp, which are food for many birds. It is here that we see in the winter flock 'The Bohemian waxwing' for which Poland is a "warm" country, adequate conditions to wait out the winter.

Waxwings are an easy object of observation, because not used to human presence in the taiga or the tundra, are also not perceive the presence of the people as a source of danger (J. Hanzak 1976). Therefore herd SITTING trees and shrubs, equipped with their food, even when they are in close proximity to people. Just such a source of food for them mistletoe, growing in a small stand on the main street of the village.

Mistletoe is a herbal material. For the production of drugs used to shoot tops and leaves separated from the thick stems. Herbs are harvested in winter, from December to March. Mistletoe extracts prepared in water and alcohol, which are used for the treatment of hypertension, arthritis and atherosclerosis. Preparations of mistletoe can be used only under medical supervision (A. Wierzbicki 1989).

Stop 5. meadow.

We are located in the meadow, which impresses with its abundance of colours and species, especially in the summer. Set

plant species depends on the environmental conditions, particularly from humidity substrate. Our meadow is situated in the valley of the river, and is occurring annually flooded with the edges of the trough with water Bug, as well as melting snow water from neighbouring fields. Is This natural fertilization meadows, determining the abundance of communities (M. Delia 2001). At the turn of May and June meadow plants reaches full development. just then top floor create a bushy panicle cocksfoot and meadow foxtail with characteristic brown - purple anthers. By contrast, soil sent debris of dead leaves and stems stretch delicate stems sent out, and of its round leaves They look yellow flowers. Here, too, we find sorrel, cuckoo flower, purple Cornflower meadow flowers and cinquefoil goose, plantain, clover and meadow cranesbills meadow (J. Antoniewicz 1960).

On humid places flourishes carrots ordinary, hogweed and mint dirt.

In this bouquet are also flourishing meadow buttercup yellow and *Ranunculus repens*.

Right on the water nots grow blue and yellow flowering kneed mud (M. Delia 2002).

In places where there are so much the diversity of plants there are numerous animals.

These are mainly insects: grasshoppers, crickets, butterflies, beetles, bees, ants and spiders.

Meadow also creates perfect conditions for feeding insect-eating mole, whose mounds

We are seeing early spring, as well as many small rodents: hamster, mouse and vole,

In the course of implementation of activities:

- Students can fill in evaluation questionnaires and pre-Final,
- There will be discussions, conversations and observations of students (will be used tools measurement in the form of student self-assessment cards and card observation pupils)
- Evaluation assuming- analysis of the final effects.

PROPOSALS CARDS evaluation:

I. Charter initial evaluation

1. Is the topics of ecology and protection of the local environment are of interest to you?

(Selection highlight)

YES NO

2. Name two ways to protect nature in our county from the negative impact of actions human

3. Have you ever heard anything about plants ruderal?

(Selection highlight)

YES NO

4. Is OPERATIONS agricultural man in the observed area is a threat to biodiversity?

(Selection highlight)

YES NO

Select the pen to "shield arms", assessing their participation in the lesson, taking into account chosen criteria. The closer to the centre of the target, the higher your score.

Knowledge

Commitment

III. Evaluation of work on lessons

The teacher presents the evaluation board, each disciple the end of the lesson approaches board and marked "+" The degree of attractiveness lessons:

:-) I'm happy, I like this type of lessons.

:-| I am partially satisfied, I can sometimes participate in this type of classes.

:-( I am angry, the form of lessons does not suit me at all.

IV. Criteria for assessing the team's work:

The name and name student...

Number in register...

Contribution to together working team...

Skill of finding solutions to the problem...

Skill of practical use of knowledge...

Observance of rigor of time...

Skill of presentation of team work...

Mark...

V. Card of final evaluation

1. Write a short message to a colleague, e.g. From Warsaw, which encourage him to rest in our area.

Offer:

2. What do you think, during the course, still have to be explained?

Proposals and justification:

3. What other issues would you like to be mentioned during class?

Proposals and justification:

Literature

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#### ANNEX

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The work submitted in the Competition for Teachers for the best lesson plan of educational activities about biodiversity, Nature 2000 sites, different forms of nature protection and influence of changes of climate on ecosystems. The contest organised within project "Under the wings of Nature 2000" - educational activities for protection of biodiversity and ecosystems in Lublin Voivodeship" conducted within Financial Mechanism of European Economic Area 2009-2014.