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студенттер мен жас ғалымдардың  
XII Халықаралық ғылыми конференциясының  
БАЯНДАМАЛАР ЖИНАҒЫ

**СБОРНИК МАТЕРИАЛОВ**

XII Международной научной конференции  
студентов и молодых ученых  
**«НАУКА И ОБРАЗОВАНИЕ – 2017»**

**PROCEEDINGS**

of the XII International Scientific Conference  
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**«SCIENCE AND EDUCATION - 2017»**



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the company.

During the Occupation period of Japan history, a new word with meaning of green has appeared among Japanese – midori 緑. But it used in generally for things that were new to the Land of the rising sun. The simple example is a green car. For habitual things have still used ao 青. It especially concerns words and phrases that were indicated above.

Thus, we could see the formation of Japanese language and culture through their traditional colors. They play a big role in communication, learning history and culture and show all-important features of Japanese mentality. Moments, which were discovered, helped to see the world from Japanese position. As any other culture, culture of the Land of the rising sun is developing and new popular colors will become part of it. However, the traditional colors have been progressing and we consider that they will continue to form Japanese language in the future. As time goes ahead, as colors will be developing and open their secrets for us.

#### **Literature:**

1. Donald Keene. THE MANYOSHU. The Nippon Gakujutsu Shinkokai Translation of one thousand poems with the texts in romaji. – New York, 1965. – 502 p.
2. Nagasaki Seiki. Iro no Nihonshi. The Japanese history of colour. – Tokyo, 1977. - 238 p.
3. Sadao Hibi. The colors of Japan. 日本の色. – Tokyo – New York – London, 2006. – 102 p.
4. Гуревич Т.М. Японский язык и японцы. Лингвокультурологическое учебное пособие на материале физиологических единиц. – М.: Триада, лтд., 2003. – 128 с.

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### **FORMATION AND DEVELOPMENT OF TERMS OF THE SYSTEM OF ECOLOGY IN THE ENGLISH LANGUAGE**

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By the beginning of the third millennium, the word «*ecology*» had become one of the most widely terms used not only by scientists but also by economists, politicians, journalists and specialists in many branches of the industrial and social sectors of the economic complex.

This is connected, according to N.F. Reimers, with the specifics of modern ecology, since «*it has turned from a strictly biological science into a significant cycle of knowledges, incorporating geography, geology, chemistry, physics, sociology, the theory of culture, economics, even theology and, in fact, all known scientific disciplines*» (Reimers, 1994, p. 12).

In the conditions when the boundaries of the structures of the ecological cycle of sciences are blurred, arises the problem of studying and ordering terminological vocabulary in the given branch of knowledge with the special urgency and importance in order to use the widely used English terminology in the world in terms of its identical understanding.

Thus, *the relevance of this study* is determined by the presence of increased interest in the study of the linguistic features of ecological terminological vocabulary.

*The purpose of this work* is a comprehensive study of the formation and development of English environmental terminology, the definition of a system of this terminology, as well as the structural analysis of its constituent terms.

*The term* is one of the main components of a scientific text. According to V.N. Komissarov «*Terms are words and phrases denoting specific objects and concepts that are used by specialists of a certain field of science or technology*» (Komissarov, 1990: 110). The term must satisfy the following requirements: accuracy, unambiguity and strict correspondence to the notion

(Komissarov, 1990: 111). As Y.I. Retsker said: «When translating terms, the guarantee of correctness and accuracy is good knowledge of a translator of a certain branch of science, technology and art in which he works» (Retsker, 1982: 33). In the opinion of A.I. Kovalenko, «When translating scientific and technical Literature:, the interaction of the term with the context is of great importance, due to which the meaning of the word is determined» (Kovalenko, 2003: 255).

Thus, *an ecological term* means a word or a phrase that in turn denotes objects and notions which are specific to environmental science. The totality of these terms constitutes a special layer of scientific vocabulary - *an ecological terminology*.

The study of special Literature:s on the history of the formation of ecology as a science makes it possible to determine the *three main stages* in the development of English ecological terminology.

#### **The first stage (from the 7th century to the first half of the 19th century).**

The origin of ecology began in ancient times. Elements of the ecological approach to the view on nature, living organisms, their dependence from the habitat can be found at the initial stages of the formation of botany, zoology and agriculture.

Great geographical discoveries enriching the world with information about new plants and animals from distant countries contributed to the development of ecology through a specific, naturalistic study of the surrounding world.

In the first half of the XIX century, a clearly defined ecological direction appears in scientific research of botanists and zoologists, special sections of ecological content within botany and zoology are formed, which is reflected in terms. The terms of this period have Greek and Latin origin. By structural characteristics, the terms of this period are divided into simple and two-component complex terms. For example: **climate** - *климат*, **nature** - *природа*, **agriculture** – *сельское хозяйство*.

#### **The second stage (from the second half of the XIX century to the first half of the XX century).**

At this stage ecology from biological science begins to turn gradually into a science that relates not only to nature, but also to human society, and, consequently, the meaning of terms accordingly changes. There appeared two-component terminological combinations with the first component **eco** and **bio**. During this period the main body of the terminology of ecology is formed. For example: **ecology** - *экология*, **ecosystem** - *экосистема*, **biometry**— *биометрия*, **biocenosis** - *биоценоз*.

#### **The third stage (from the second half of the XX century to the present).**

Expansion of the range of problems in the environment has led to the enrichment of environmental lexicon with new terminology which was related primarily to environmental management and environmental protection. Ecology is increasingly understood as a science of environmental protection which affects the meaning of terms. For example: guidance on water conservation – *правила охраны вод*, **environment related activity** – *природоохранная экологическая деятельность*, **air pollution network** – *сеть контроля загрязнения атмосферы*. The emergence of multicomponent terminological combinations, the terminology and metaphorization of common vocabulary for the nomination of new concepts, the emergence of various types of abbreviations are characteristic to this stage. For example: BOD (Biochemical Oxygen Demand) – (биохимическая потребность в кислороде), **industrial metabolism** – *промышленный метаболизм*, **efficient use of natural resources** – *рациональное использование природных ресурсов*.

Ecology as a complex science with its special approach to the study of complex processes, occurring in different environments and components of nature could not become such without close interaction with other sciences. The composition of the terminology of ecology reflects this specificity. When forming the sublanguage of ecology notions from the following areas of knowledge were used: geography - **area** (участок; пространство, район, область), **land** (земля, суша, почва), chemistry - **acid** (кислота), **oil** (нефть), **ozone** (озон), **alkali** (щёлочь), **carbon dioxide** (двуокись углерода, углекислый газ); biology - **microorganism** (микроорганизм),

**biotope** (биотоп); physics – **power** (энергия), **heat** (тепло, теплота); jurisprudence – **law** (закон, право); economy – **tax** (налог), **loan** (заём).

Environmental terms differ in the functioning areas (Latyshevskaya, 2012). On the field of functioning in the sublanguage of ecology the following types of terms are distinguished: **intersectoral terms**, functioning in several areas of knowledge: **energy** *энергия* (physics, energy); **balance** - *баланс* - mathematics, economy, coefficient – коэффициент (mathematics, economics), **oxygen**- *кислород*, **carbon**- *углерод*, **ozone** - *озон* chemicals- *химикаты* (medicine, chemistry); **general scientific terms** intended to express concepts applicable to all areas of knowledge: analysis - *анализ*; **control** – *контроль*, **system** – *система*; **temperature** - *температура*; **technology** - *технология*; **unique terms** used only in one area of science: autecology - *аутэкология*; **synecology**- *синэкология*; **greenhouse gases**- *парниковые газы*; **Involved: biota** – *биота* (from biology); **audit** - *аудит* (from economy).

Classification of terminological vocabulary by thematic groups is connected, on the one hand, with the extralinguistic reasons, on the basis of associative links between the notions; on the other hand, there is also a linguistic reason for studying terminolexics within the thematic groups: the structural and semantic links of terms that make up a particular thematic group. The systematization of these terms allows us to discover the essential links and relationships between terms, to establish the place of each term in the conceptual system.

According to the structural analysis of the terminology of terminological units the following structural types of terms are distinguished in English: a) simple terms, b) complex terms c) multicomponent terminological combinations, d) abbreviations.

Simple terms from the point of view of affixal mode of formation contain Greek-Latin prefixes and affixes, such as: re-, de-, dis-, -ing, -ty, -ment, -er / -or, as well as a suffix of Roman origin -tion. For example: **sampling**—*отбор проб*, **canalization**—*выправление рек, канализация*, **industrial**—*промышленный, производственный*.

By its structure complex terms in the terminology under study can be full and incomplete complex [Stepanova, 2007]. The first stem joins here to the second directly: **underflow** – *подрусловые воды*, **windfall** – *ветровал*, **oilspot** – *нефтяное пятно*. In incomplete terms, the first stem is attached to the second with the help of a connecting element -s or a hyphen: *ombudsman* - *омбудсмен, уполномоченный по рассмотрению жалоб*; wind-resistance – *ветроустойчивость*, host-plant - *растение-хозяин*.

The structural model N + N = N has the greatest activity, where N is a noun. By this model attributive complex nouns are formed. For example: **pipe** + **line** = **pipeline** (*трубопровод*), **sink**+**hole**=**sinkhole** (*воронка просасывания*).

The second productive model is Adj+ N, where Adj is an adjective, N is a noun. For example: **water** + **way** = **waterway** (*водный путь*), **low** + **cost** = **low-cost** (*малозатратный, недорогой*).

Less common is the Ad + N model, where Ad is an adverb, for example: under + flow = underflow (*подрусловые воды, подрусловый поток*).

It should be noted that in the process of formation of complex environmental terms and terminological combinations certain terms become the nucleus for the formation of new lexical units. The second component of the complex term and the last word in the terminological combination occupy a fixed position (postposition) and the process of the formation of complex terms is reduced to the addition of new words denoting species attributes to the existing nuclear word. For example: hail + **storm** = **hailstorm** (*гроза или ливень с градом*), thunder + **storm** = **thunderstorm** (*гроза*), snow + **storm** = **snowstorm** (*метель, буря, снежная буря, вьюга*), sand + **storm** = **sandstorm** (*песчаная буря в пустыне, самум*), sea **pollution** (*загрязнение водной поверхности земного шара*), acid **pollution**(*кислотное загрязнение*).

And also we can note the following types of terminological collocations:

1) Attributive word combinations, which are combinations of the stem noun and coordinated with it in gender, number and case of the full adjective (participle) as the defining word; structural type; "Adjective (participle) + noun". In attribute collocations, the main element is expressed by the noun in the nominative case, and the attributive element by the adjective, which performs the

function of a prepositional definition. At the same time, the basic element of the terminological combination determines the gender sign of the concept, and the attribute element is the specific feature of the concept. For example: **hazardous substance** – *опасное вещество*, **nitrogen fertilizer** – *азотное удобрение*.

2) Object phrases, a group of nominal combinations for the expression of concepts about objects. Syntactically, they are a combination of a noun with a determinant component in the genitive case and are the most important means of concretizing what is indicated. For example: **bitumenization of radioactive waste** – *битумирование радиоактивных отходов*.

3) Mixed phrases, in the structure of one terminological word combination, several types of syntactic relations take place simultaneously. For example: **ecological well-being of water body** – *экологическое благополучие водного объекта*. Adjectives and participles here act as a clarifying dependent word.

Abbreviations are another structural type of the formation of environmental terms. Based on the classifications of abbreviations proposed by some researchers (V.V. Borisov, L.K. Kondratyukova, L.B. Tkachev) we determined the following types of abbreviations that are available in the sample of English environmental terms:

A) **Initial abbreviation**, for example: **EAP** (Environmental Assessment Program) – *программа экологической оценки*;

B) **Contraction**, the abbreviated form is formed by preserving a number of consonant letters of the term, for example: **BREFs (BAT References)** – *справочные документы по наилучшим доступным технологиям*;

C) **Acronymy**, i.e. the formation of an abbreviated form by an initial abbreviation that coincides with the general literary word, or truncation of one or more terminological combinations for ease of pronunciation. For example: **HELCOM (Helsinki Commission)** – *Хельсинская Комиссия по охране морской природной среды региона Балтийского моря*;

D) **Hybrids**, in which only a part of the components of terminological combination is shortened, while the other part remains unchanged. For example: **DC Environment (Directorate General for Environment for the European Commission)** – *Генеральный Директорат по окружающей среде Комиссии Европейского Сообщества*.

Abbreviations in English environmental terminology can cause an intra-branch synonymy, since both abbreviated and complete versions of the term are used.

Moreover, sources of replenishment of English ecological terminology are borrowings and neologisms. Sources of borrowed environmental terms are Greek, Latin, German and French. For example: **ecology** (from Greek *oikos* – жилище, *logos* – учение), **biology** (from Greek *bios* – жизнь, *logos* – наука), **reservoir** (from French *reservoir* – резервуар; бассейн; водохранилище); **acclimatation** (from Latin *ad* – к, *pri* и *u* and Greek *klimatos* – наклон), **algology** (lat. *alga* – водоросль and Greek *logos* – учение), **antagonism** (from Greek *antagonism* – спор, борьба), **population** (Latin *populatio* – народ) – *популяция, род*.

Modern development of science and technology, negative changes in the environment contribute to the emergence of new neologisms in English ecological terminology. For example: nuclear winter – «*ядерная зима*», sound pollution – *шумовое загрязнение*, zone of environmental disaster – *зона экологического бедствия*, national calamity – *стихийное бедствие*.

Thanks to new directions in science, new neologisms that express the concepts of new emerging sciences have appeared in it: *applied ecology*, *urban ecology* (ecology of living organisms in urban conditions).

New technologies and other ways to withstand the deterioration of the environmental situation throughout the world reflect, in turn, some new designations including: industrial pollution fund – *фонд борьбы с промышленным загрязнением*, zero-cost improvements – *без затратные улучшения*, public environmental awareness – *информированность общественности об экологических проблемах*, law enforcement agency – *контроль в области охраны окружающей среды*, environmental bank – *экологический банк, занимающийся финансовой деятельностью, относящейся к природоохранным инвестициям, займам, кредитам*, etc.

In conclusion it should be noted that the bank of ecological terminology continues to expand as the modern development of science and technology accompanied by the emergence of harmful production and technology worsens the ecological situation throughout the world. In this regard, there is a need to study and describe both the factors that have a negative impact on the environment and the ways to deal with them and it does require a new terminology.

#### **Literature:**

1. Реймерс Н. Ф. Экология (теории, законы, правила, принципы и гипотезы) — М.: Журнал «Россия Молодая», 1994 , 12 с.
2. Комиссаров, В.Н. Теория перевода (лингвистические аспекты): Учеб. для ин-тов и фак. иностр. яз. М.: Высш. шк., 1990, С.110-111
3. Рецкер, Я.И. Пособие по переводу с английского языка на русский язык. М.: Просвещение, 1982, С. 33
4. Коваленко, А.Я. Общий курс научно-технического перевода: Пособие по переводу с английского языка на русский. Киев, 2003, С. 255
5. Коваленко, Е.Г. Англо-русский экологический словарь. М.: ЭТС, 2001
6. Акжигитов, Г.Н. Англо-русский экологический словарь. М.: Русский язык, Медиа, 2000
7. EPA Terms of Environment Dictionary [Electronic resource]. URL: <http://www.ecologydictionary.org/>
8. National Geographic Россия [Electronic resource]. URL: <http://www.nat-geo.ru/>.
9. National Geographic Magazine [Electronic resource]. URL: <http://www.nationalgeographic.com/ngm>.
10. Online Etymology Dictionary [Electronic resource]. URL: <http://www.etymonline.com/>.
11. Collin, P.H. 2004. Dictionary of Environment & Ecology.
12. Hanson, H.C. Dictionary of Ecology.

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### **RUSSIAN-POLISH RELATIONS AFTER THE COLD WAR**

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The feelings which Russia and Poland have towards each other are “always marked by mistrust”. [1] From historical point of view, Poles always were fighting with oppressive neighbors (tsarist Russia, and the USSR), which explains why Poles support Chechnya, Georgia, Ukraine in fights against Russia, referring to the heritage of solidarity. [2] The Baltic States with the big Russian-speaking population and Poland had strong anti-Russian moods because of a possibility of revival of Russian imperial ambitions. [3] They claim that "there will be no independent Poland without independent Ukraine" and "Without Ukraine, Russia ceases to be an empire". [4] Since the collapse of the USSR, Polish relations towards Russia have been built on the basis of these claims, and Ukraine was an integral part of the process of development of bilateral relations.

On the way of joining the EU and NATO, Poland was trying to shape European policy towards Ukraine and Belarus. This was the place when Poland's plans contradicted to the interests of Russia. Russia and Poland for a long time had tensions regarding the territories of current Lithuania, Belarus, Ukraine, which were part of First and Second Polish republic. [5] After the collapse of the USSR, Lithuania, Belarus, and Ukraine became independent, this was supposed to put an end to the tensions between Russia and Poland. [6] However, after the end of Cold War, these territories continued to play an important role both for Russia and Poland, which had different