Topic #11
Human population characteristics

Motivation

Population characteristics of humans

Motivational characteristics

Human population is synonymous with the concept of "Earth population". The human population has the same reasons as the animal population, but the nature and form of manifestation change significantly due to factors such as the artificial environment, socio-economic conditions, etc., called by a single term - society. All people on earth adhere to a single population system - humanity. This system has limited access to problems and living conditions. At the same time, the human population is experiencing continuous growth. And reasonable human behavior involves studying the formation of one's own population growth, determining the quantitatively optimal size and configuration of the population in connection with the capacity of a given area, carrying out "cultural regulation" where "natural regulation" is not carried out.

Purpose of the lesson: to introduce human observation as one of the fundamental concepts of human ecology.

Questions for oral questioning:

1. Proposal about caring for a person, definition.
2. The basic structure of the human structure.
3. Dynamic behavior indicators.
4. Types of age composition of the population.
5. Types of population reproduction.

List of knowledge and practical skills

After mastering the topic, the student should know: the basic structures of the definition of a person and assessment indicators.

After mastering the topic, the student must be able to: analyze the main human population characteristics and conclusions about their possible regulation.

Independent work of students in class

1. Solving a situational professionally oriented problem, documenting the solution in a protocol.
2. Working with training test tasks.

Test task on the topic

"Human Population Characteristics"

Select one or more correct answers.

01. Elderly representatives make up a large proportion of the population:

a) rapidly growing;

b) be in a stable condition;

c) with a reduced audience;

d) in which there is no clear pattern of growth.

02. The ratio of representatives of representatives of age status is called:

a) average life expectancy in observations;

b) age composition of observation;

c) associated fertility;

d) own fertility.

03. The most stable results are:

a) from one generation (generation);

b) two generations;

c) three generations;

d) several generations and descendants of each of them.

04. The population is characterized by the following properties:

a) birth rate, death rate;

b) area of the territory;

c) distribution in space;

d) habitat, living conditions.

05. Age structure of observation:

a) Determination of conditions of detention;

b) does not depend on the life cycle of the species;

c) depends on the mortality rate and the birth rate;

d) depends on the size of the observation.

06. Evolutionary significance of populations:

a) accept the genetic constancy of the species

b) are capable of exclusively beneficial mutations

c) give rise to new species

0 7. Sign of a trend:

a) stability of the size of individuals

b) relatively stable genetic constancy

c) widespread among individuals of different species

08. A population is characterized by the following property:

a) habitat b) area c) birth rate

0 9. The gender structure of the structure is:

a) the quantitative ratio of male and female representatives in a trend b) the quantitative ratio of male representatives in a trend c) the quantitative ratio of female representatives in a trend

10. The age structure of the structure is:

a) the distribution of representatives by age and hierarchy; b) distribution of representatives by age and their articles;

11. The spatial structure of location is:

a) the spatial arrangement of representatives of representatives b) the spatial arrangement of some representatives of the representation c) the spatial arrangement of all representatives of the body

12. Mortality is:

a) the number of representatives who should have died b) the number of people who died per unit of time c) the number of people who died last year

13. All components of the habitat that affect life activity

Name:

a) abiotic factors

b) biotic factors

c) driving factors of evolution

d) environmental factors

14. Self-regulation includes the protection of populations:

a) completion of work

b) modification variability

c) hereditary variability

d) limitations of limiting factors

3. Hearing and discussion of an essay prepared by a student on an individual assignment from the teacher.

Reference material

Population is any collection of individuals of the same species capable of self-reproduction, more or less isolated in space and time from other similar populations of the same species.

A human population is a community of people moving into a territory that occupies a boundary with ecological conditions and unified unities of origin, which is expressed in a common heritage.

The human population, like any type of living organism, is a system with a developed structure. It can be divided into *spatial, gender, size-age, etc.* type.

Current population is the part of the population that is located in a given locality at the time of registration, regardless of place of residence.

A global nation is a part of the population that permanently resides in a given locality, regardless of the actual place of residence at the moment.

Population aging is a steady process of increasing weight among older people and reducing the proportion of children, especially intense since the beginning of the 20th century.

Sexual structure reflects the aspect ratio of the view; this indicator is especially important for species with predominant dexterous reproduction. The human population is bisexual, with a sex ratio close to 1:1, which is maintained genetically. However, 5% more boys are born than girls. However, since mortality at all ages is higher for males than for females, these differences at the age of 20–25 years are initially leveled out, and income growth is already dominated by women.

Age structure Influence - interaction in the composition of representatives of different ages, representing one or different offspring of one or more characteristics. The sex and age structure of populations depends on two main reasons: biological species and special environmental factors that determine its existence.

The age pyramid reflects a given locality or state in a given locality and contains information about each age category of people, the nature of population growth, the positive or negative impact on living conditions, etc.

Pyramids are built in age-number coordinates. Each age class for different animals, depending on their life span, has different intervals, and for humans - an interval of five years. It is drawn as a horizontal “lying column”, the length of which is equal to the given age class. The “youngest” column fits into the pyramid of the pyramid, the “eldest” one crowns i.

According to the age composition, progressive, regressive and stationary types are distinguished. population :

Progressive type population – proportion of children aged 0–14 years calculates the proportion of the population V age 50 years and older. Progressive type population contributes to further population growth.

Regressive type - the proportion of people aged 50 years and older, the proportion of the population from 0 to 14. The regressive type is a threat to the extinction of a nation.

Stationary - the type of relationship between these groups is approximately the same.

Genetic structure changes in the trend and diversity of genotypes, the frequency of variations of individual genes - alleles, as well as the direction of the direction to groups of genetically close individuals, between previous crossbreeds there is a constant exchange of alleles.

Number of activities – this is the number of individuals (representatives of a direction) within a certain spatial value - an area, a river in a basin, a water area of the sea, a region, a district, etc.

The size of the brain, like the structure of any type of living organism, almost never remains constant. It is constantly undergoing changes caused by changes and determining factors.

Changes in the development of light industry over time (**N/t**) develop as follows:

N/t = (B + im) – (D + em),

Where:

N – number of studies

t - time

B - *fertility,* or the number of babies, increases significantly among older women;

D – *mortality,* or the number of dead individuals in Africa, regardless of the explanation of their death - old age, illness, death from accidents, in military conflicts, expected disasters, etc.;

im – *immigration,* or influx of individuals from other populations into a population;

em – *emigration,* or outflow of individuals from those represented in other conditions.

All these parameters have the dimension “individual · time $^{-1}$ "

Natural population growth (NP) is the absolute value of the difference between the number of births and deaths over the current period of time, showing the advance of the birth rate over the death rate.

Its value can be both positive and negative: N - M = E,

where N is the total number of births, M is the total number of deaths.

Natural population growth can be: 1) an indicator (E>0), when the birth rate increases the death rate; 2) zero (E=0), when the birth rate is equal to the death rate; 3) negative (E < 0).

EP = ((number of births per year – number of deaths per year)/average annual population) x 1000

Fertility, or birth rate, is the process of the emergence of new phenomena.

The total fertility rate is distributed by dividing the number of births per year N by the average population.

Mortality rate, or mortality rate, **-** This is a special person who died in an era of global scale. Mortality is a demographic process that includes the totality of deaths in a given population over a certain period.

The overall mortality rate is determined by dividing the number of deaths per year by the average population multiplied by 1000. This indicator determines the criterion for the quality of life of the population.

Mortality assessment levels: very low (less than 7%), low (7-10%), average (11-15%), high (16-20%), very high (more than 21%).

Demographic characteristics of the activity:

place of residence (urban and industrial population);

gender (men and women, including by age);

age.

Natural population movement is the continuous change in the structure and size of the population as a result of births, deaths, marriages and divorces. The natural movement also includes changes in the sex and age structure of the population due to the close relationships and changes with all demographic processes. Naturally, the movement includes birth rate, death rate, they say growth.

Population reproduction is a process of changing states. Types:

Expanded reproduction – the advantages of world leaders are greater than those of previous ones.

Reduced reproduction – new samples are lower than previous ones.

Simple reproduction – trends similar to previous ones.

The family structure of the population (grouping of the population according to its marital status) characterizes the number of families and the share of each group in the total number of families in the following areas: 1) completeness and incompleteness of the family - a family with and without a brotherly couple; 2) the structure of two-parent families based on those living in them at the same time - a married couple without children; married couple with children; a married couple without children with the parents or grandparents of the spouses; a married couple with children and with parents or grandparents; a married couple without children with direct relatives (brothers, sister); married couple with children and relatives in the back line (other relatives); 3) prospects in reproductive terms - family spouses are no older than 30 years old, married no older than 5 years; 4) distribution of families by composition of family members - grouping of families by composition of family members: 2, 3, 4, 5, 6, 7 or more; 5) distribution of families by type of consumption - groups of families with and without dependents; families, our dependents of children, working age and older than working age; families, our state dependents - pensioners and scholarship holders