MYP Ecology Part II Exam Expectations

STATE the estimated number of species on earth today

STATE that carbon dioxide levels in the atmosphere are positively correlated with temperatures since prehistoric times

STATE the common theme to different natural history strategies

STATE the unit of measurement for an ecological footprint

STATE that global warming could have significant effects on U.S. agriculture

STATE the single greatest threat for loss of biodiversity today

STATE that small populations are more vulnerable to genetic drift and bottlenecking

LIST four factors that affect population size

LIST two components of species diversity

LIST the main decomposers found in ecosystems

LIST all possible classes of producers found in ecosystems

LIST the two most common limiting factors in aquatic ecosystems

LIST the two most common limiting factors in terrestrial ecosystems

LIST a couple aims or goals of modern conservationists

OUTLINE each different line of the survivorship curve

**OUTLINE** natural history strategies

OUTLINE k and r natural history strategies

OUTLINE the general shapes of age structure pyramids where population size are: is growing, is declining and are stable

OUTLINE an ecological niche

**OUTLINE** resource partitioning

OUTLINE the effects of keystone species on the overall diversity of communities

OUTLINE gross and net productivity

**OUTLINE** succession

OUTLINE the green world hypothesis

**OUTLINE** eutrophication

OUTLINE the global trend in species richness

OUTLINE how habitat fragmentation is related to extinctions

OUTLINE a fundamental difference between energy and matter as they relate to ecosystems

OUTLINE negative effects associated with deforestation

OUTLINE negative effects associated with industrial agriculture

OUTLINE the production of acid precipitation from sulfur oxides and nitrogen oxides

OUTLINE the negative effects of acid precipitation on soil, lakes and buildings

OUTLINE the change in atmospheric carbon dioxide levels over the last 150 years

OUTLINE how invasive species negatively affect their environments/ecosystems

DESCRIBE an example of biomagnification

IDENTIFY producers, consumers and decomposers on a food web

IDENTIFY a statement that is consistent with the competitive exclusion principle

IDENTIFY a statement that best describes resource partitioning

IDENTIFY independent and dependent limiting factors from a list of choices

IDENTIFY variables responsible for recent (last 100 years) human population growth

COMPARE stability and resilience in terms of biological communities

COMPARE genetic diversity, species diversity and ecosystem diversity

SUGGEST the minimal components necessary for the simplest possible ecosystem

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SUGGEST the types of living organisms most vulnerable to overexploitation SUGGEST a best strategy for saving an endangered species from the extinction vortex DISCUSS extinctions in general and why environmentalists today are particularly concerned about current rates

EXPLAIN a few consequences of loss of biodiversity

**EXPLAIN** bioremediation

DEDUCE a type of community interaction (ie. mutualism) from an example description

DEDUCE the effects of community interactions (ie. mutualism) on the population size of the interacting populations

PREDICT the change in population size given relevant data

PREDICT the effects on r, b and d when N approaches K in the logistic growth equation

PREDICT the amount of biomass in some consumer in a food chain given the biomass of the producers in the same food chain

ANALYZE a survivorship curve to answer a question

ANALYZE an age structure pyramid to answer a question