UNIVERSIDADE ESTADUAL DE SANTA CRUZ- UESC
Pró-Reitoria de Pesquisa e Pós-Graduação
Departamento de Ciências Biológicas
**PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA E CONSERVAÇÃO DA BIODIVERSIDADE**

Processo seletivo PPGECB - 2016

**Prova de conhecimentos em Língua Inglesa**

CPF do candidato: _____ MS ( ) DR ( )

Instruções para a prova:

1) **Não coloque NOME nas folhas** de prova em hipótese alguma. Sua única identificação será o número de seu CPF ou passaporte para candidatos estrangeiros.
2) A prova tem duração máxima de 2 horas, incluindo os dez (10) minutos exclusivamente para a leitura das instruções e das questões
3) É permitido o uso de dicionários.
4) A prova é composta por dois textos, cada um com seis questões. Todas as questões devem ser respondidas em português.
5) Se necessitar de esclarecimentos sobre as instruções, solicite ao examinador no período inicial para leitura das instruções.
6) Durante a prova, o examinador não poderá responder a nenhuma pergunta sobre o conteúdo das questões.
7) Use caneta azul ou preta para responder. Respostas a lápis não serão consideradas.

Boa prova!

## Texto 1: Global Fish Harvests Far Higher Than Official Figures, Study Says

By Daniel Cressey, Nature magazine on January 20, 2016
(fonte: http://www.scientificamerican.com/article/global-fish-harvests-far-higher-than-official-figures-study-says/?print=true)

Tens of millions more tons of fish have been taken from the seas than are recorded in official statistics, suggests a huge and controversial project aiming to estimate the 'true catch' of the world's fishing industry. The work is detailed in a paper in *Nature Communications* by fisheries researchers Daniel Pauly and Dirk Zeller of the University of British Columbia in Vancouver, and it builds on a decade-long project that has drawn in hundreds of researchers from around the world. According to Pauly and Zeller, global fisheries catches hit a peak of 130 million tons a year in 1996, and they have been declining strongly since then. This is substantially higher than the data collected by the Food and Agriculture Organization of the United Nations (FAO), which report that catches reached 86 million tons in 1996 and have fallen only slightly.

This decline is due at least in part to collapses in some fish stocks, says Pauly. The FAO numbers have long been the only estimate of how many tons of fish are caught at a global level. But "the FAO doesn't have a mandate to correct the data they get", Pauly told journalists during a conference call. This leaves the organization reliant mainly on the numbers submitted by member countries, he says, and "the countries have the bad habit to report only the data they see". This means that many official statistics do not account for a huge amount of the world's fisheries catch, such as that by small-scale and subsistence fisheries or fish thrown back as 'discards'—species other than those being hunted.

To fill in the holes in official statistics, Pauly's team embarked on an epic project to supplement the official baseline data from member nations. This included using results from peer-reviewed research, interviews with local specialists and consumption information from population surveys. For example, one study has estimated that Senegal's catch is more than twice as large as the official FAO numbers. Some fisheries researchers, however, have questioned Pauly's catch-reconstruction methods. He has also engaged in a sometimes-heated debate about whether data from catches can shed light on the state of fish populations remaining in the ocean. Overall, however, Paul is happy to point to the simple message of the research: "The catch of the world is higher than reported."

In a statement, the FAO welcomed the paper, saying that "the idea of catch reconstructions has merit" and noting that the reconstruction work builds in part on FAO data. The FAO adds that it has some "technical reservations" about the trends identified, but "agrees with the basic conclusions of the paper: catch statistics (including estimates of additional sources of removals) can and should be improved, and this requires additional funding and international collaboration and country commitment".

*This article is reproduced with permission and was first published on January 19, 201*

Perguntas:

1. Segundo o texto, as estimativas oficiais de pesca estão corretas? Qual a diferença encontrada pelos autores?

2. Indique as diferenças entre as estimativas da FAO e a dos pesquisadores.

3. Quais as razões apontadas para esta diferença nas estimativas?

4. Qual a razão para a queda na atividade de pesca, segundo os autores?

5. Que tipos de dados foram usados por Pauly e Zeller para levantar a "pesca real"?

6. Quais os comentários da agencia oficial (FAO) sobre os resultados do artigo?

**Texto 2:A Garden Grows in Space: First Zinnias Bloom, to an Astronaut's Delight**

*NASA's Veggie program takes a big step forward in its goal to learn how to grow more complicated plants in space*
By Sarah Lewin, Nature magazine on January 20, 2016
(fonte: http://www.scientificamerican.com/article/a-garden-grows-in-space-first-zinnias-bloom-to-an-astronaut-s-delight/?print=true)

Zinnias have opened their pretty petals for the first time on the International Space Station, and NASA astronaut Scott Kelly couldn't be prouder. The zinnias, grown as part of the Veggie program, have had a rough path: They battled excessive water, overdrying and even enterprising mold before beginning to recover in early January.

To better balance conditions for the zinnias, NASA named Kelly an autonomous gardener (or "commander" of Veggie) on Christmas Eve, so he could independently decide when the plants needed to be watered or tended to instead of waiting for directives from Earth. It looks like that hard work has paid off, with new photos of the zinnia's first vivid orangey-yellow bloom. Earlier this year, the space station crew grew romaine lettuce (and snacked on it, while their cosmonaut colleagues were on a spacewalk), but the zinnias are a stride forward because they are more challenging to grow, with more exacting environmental requirements.

"The zinnia plant is very different from lettuce," Trent Smith, Veggie project manager, said in a statement. "It is more sensitive to environmental parameters and light characteristics. It has a longer growth duration between 60 and 80 days. Thus, it is a more difficult plant to grow, and allowing it to flower, along with the longer growth duration, makes it a good precursor to a tomato plant."

Many plants have been grown in space—including sunflowers, in 2012—but the Veggie program aims to learn about how to grow a complicated plant through its entire life cycle and overcome the hurdles on the way. Once they conquer zinnias, astronauts might be able to grow other flowering plants, like tomatoes, that could tide astronauts over on long journeys, NASA officials said in the statement. But for now, the astronauts can come together to marvel at those zinnias growing far from home. Kelly is joined by NASA astronaut Tim Kopra and European Space Agency astronaut Tim Peake, along with cosmonauts Mikhail Kornienko, Sergey Volkov and Yuri Malenchenko. Along with Kornienko, Kelly will end his yearlong stay on the space station in March.

Perguntas:

1. Aonde as zinnias do texto estão sendo cultivadas?

2. Que desafios as zinnias do Programa de vegetais (Veggie programa) enfrentaram até chegar a a florescer?

3. Que cargo recebeu Kelly para cuidar da zinnias?

4. Porque o florescimento das Zinnias no espaço foi tão comemorado?

5. Que outras plantas citadas no texto foram criadas no espaço?

6. Que outras plantas poderiam ser cultivadas? Porque cultivá-las seria importante?