



## INSTRUÇÃO PARA REALIZAÇÃO DA PROVA DE PROFICIENCIA EM INGLÊS

- 1) Este caderno contém cinco questões discursivas. Caso apresente defeito de impressão ou falta de questão, o candidato deverá solicitar ao fiscal outro caderno.
- 2) Verifique se as informações do Cartão de Respostas estão corretas e se correspondem a este caderno.
- 3) O candidato deverá assinar no espaço destinado no cartão de respostas.
- 4) Receberão nota igual a zero:
  - a. Respostas em língua estrangeiras;
  - b. Respostas redigidas a lápis;
  - c. Respostas sem assinatura no cartão de respostas.
- 5) O candidato deverá redigir as respostas definitivas, no Cartão de Respostas no máximo em 10 linhas, de forma legível e sem rasuras, utilizando caneta esferográfica de tinta azul ou preta.
- 6) Os espaços para rascunho do caderno de provas são de uso opcional, não serão considerados para efeito de avaliação.
- 7) Não serão distribuídas folhas suplementares para rascunho nem para versão definitiva.
- 8) O tempo de duração da prova é de duas horas.
- 9) Após uma hora o candidato poderá sair da sala.
- 10) Ao término da prova o candidato deverá entregar ao fiscal o cartão de respostas e este caderno.
- 11) O candidato poderá levar este caderno faltando 30 minutos para o término da prova.

### CRONOGRAMA

DATA	EVENTO
13/03/2009 período matutino	Divulgação do resultado – Prova de Conhecimentos específicos
13/03/2009 período matutino	Divulgação da data e horário da entrevista para os candidatos aprovados.
13/03/2009	Entrevista para os candidatos aprovados a partir da 14:00 horas.
14/03/2009	Entrevista para os candidatos aprovados das 07:00 as 12:00 horas.

Local da entrevista: Cidade Universitária (antigo aeroporto)- Prédio : Centro de Pesquisa

**BOA PROVA!**

## Prova de Proficiência em Inglês

### The Soil Foodweb\*: It's Importance in Ecosystem Health

01 The structure and function of the soil foodweb has been suggested as a prime  
indicator of ecosystem health (Coleman, et al. 1992; Klopatek, et al. 1993).  
Measurement of disrupted soil processes, decreased bacterial or fungal activity,  
05 decreased fungal or bacterial biomass, changes in the ratio of fungal to bacterial  
biomass relative to expected ratios for particular ecosystems, decreases in the  
number or diversity of protozoa, and a change in nematode numbers, nematode  
community structure or maturity index, can serve to indicate a problem long before  
the natural vegetation is lost or human health problems occur (Bongers, 1990;  
Klopatek et al. 1993).

10 Soil ecology has just begun to identify the importance of understanding soil foodweb  
structure and how it can control plant vegetation, and how, in turn, plant community  
structure affects soil organic matter quality, root exudates and therefore, alters soil  
foodweb structure. Since this field is relatively new, not all the relationships have  
been explored, nor is the fine-tuning within ecosystems well understood.

15 Regardless, some relationships between ecosystem productivity, soil organisms,  
soil foodweb structure and plant community structure and dynamics are known, and  
can be extremely important determinants of ecosystem processes (Ingham and  
Thies, 1995). Alteration of the soil foodweb structure can result in sites which cannot  
be regenerated to conifers, even with 20 years of regeneration efforts (Perry, 1988;  
20 Colinas et al, 1993). [...]

The numbers, biomass, activity and community structure of the organisms which  
comprise the soil foodweb can be used as indicators of ecosystem health because  
these organisms perform critical processes and functions. Soil decomposers  
(bacteria, fungi and possibly certain arthropods) are responsible for nutrient  
25 retention in soil. If nutrients are not retained within an ecosystem, future productivity  
of the ecosystem will be reduced as well as cause problems for systems into which  
those nutrients move, especially aquatic portions of the landscape (Hendrix et al,  
1986; Klopatek, et al. 1993).

30 As ecosystems become more productive, the total amount of nutrients retained  
within the system increases. As succession occurs, nutrients are increasingly  
immobilized in forms that are less available for plants and animals, such as  
phytates, lignins, tannins, humic and fulvic acids (Coleman et al, 1985, 1992). In  
order for nutrients to become available once again to plants and animals, they must  
be mineralized by the interaction of decomposers, i.e. bacteria and fungi, and their  
35 predators, i.e. protozoa, nematodes, microarthropods, and earthworms (if present).

These predator populations and the rates at which they perform mineralization  
processes are important to ecosystem stability. The activity of these predator-prey  
interactions (which determines the rate at which mineralization occurs) are in turn  
affected, and perhaps controlled by, higher level predators such as millipedes,  
40 centipedes, beetles, spiders, and small mammals.

[...]

\* foodweb = cadeia alimentar, rede alimentar, teia alimentar.

Fonte: <file:///E:/Science/ingham.html>

*The Soil Foodweb: It's Importance in Ecosystem Health*. n.d. Retrieved 2005, from  
Ingham, E.R. Website: <http://www.rain.org/~sals/ingham.html>

Leia o texto acima e responda as seguintes questões:





