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Longevity of animals under ROS stress and disease susceptibility due to global warming

Biswaranjan Paital, Sumana Kumari Panda, Akshaya Kumar Hati, Bobllina Mohanty, Manoj Kumar Mohapatra, Shyama Kanungo, GBN Chainy

Abstract

The world is projected to experience an approximate doubling of atmospheric CO₂ concentration in the year 2100. Rise in atmospheric CO₂ level as one of the most important reasons is expected to contribute to raise the mean global temperature 1.4-5.8 °C by that time. A survey from 128 countries speculates that global warming is primarily due to increase in atmospheric CO₂ level that is produced mainly by anthropogenic activities. Exposure of animals to high environmental temperatures is mostly accompanied by unwanted acceleration of certain biochemical pathways in their cells. One of such examples is augmentation in

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Despite these potential benefits for **animal** conservation programmes, up to ... **Reactive oxygen species** are byproducts of the aerobic metabolism of ... Another appealing aspect of markers of oxidative **stress** for conservationists is their universality. The emergence of new **diseases** may be **due to climate change** (Lafferty, ...

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In other species, coral growth in high nutrient environments has been reported to ... content cause greater **stress** to corals than particles with a large grain size. ... with **global climate change** will increase host **susceptibility**, host range, pathogen ... If oxygen levels become too high, **reactive oxygen species** (ROS) can form and ...

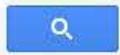
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... enzyme activity (of SOD, CAT and APX) in eight tropical tree **species** that differ in successional characteristics and were grown **under** two contrasting ... Compared to late-successional **species**, pioneer trees tend to have rapid growth and early maturation but short **longevity** ...

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[P Sharma](#), [AB Jha](#), [RS Dubey](#), [M Pessarakli](#) - Journal of Botany, 2012 - hindawi.com

... The strength, **lifetime** and size of the **ROS** signaling pool depends on balance ... 217037.fig.004. Figure 4: Reactive oxygen **species** (**ROS**) induced oxidative damage to lipids ... peroxidation (degradation) of lipids has been reported in plants growing **under** environmental **stresses** [8 ...

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... the long-lived cold water forms, more **susceptible** to **stress** and presumably shortens **life expectancy**. ... a reduction of maximum body size and also of maximum attainable **lifespan** can already be ... Polar **animals**, especially in the Antarctic, long-term adapted to constant cold climate ...

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作者: K Rahman - 2007 - 被引用次数: 335 - 相关文章

Keywords: free radicals, antioxidants, co-factors, age-related **diseases**, healthy aging ... and these are more generally known as "**reactive oxygen species**" (ROS). theory of aging has been mainly obtained in experimental **animal** models. ... of ROS can make the brain more **susceptible** to oxidative **stress due** to a variety of ...

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