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## THE EFFECT OF FRAGMENTED RAINFOREST VEGETATION ON THE ADAPTATION STRATEGY OF FRANCOLIN BIRDS (*FRANCOLIN BICALCARATUS*) IN BANGEM, SOUTHWEST REGION, CAMEROON

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### ABSTRACT

Habitat fragmentation is a growing threat to many species globally, particularly those living in tropical rainforests. Francolins are an integral part of the tropical rainforest ecosystem in Cameroon, playing important roles as seed dispersers, insect and small prey consumers, and prey for larger predators. Their presence helps maintain the balance and diversity of the forest food web, hence their conservation in Cameroon is crucial for maintaining the ecological balance, supporting local livelihoods, preserving cultural heritage, and contributing to the sustainable management of the country's valuable rainforest resources. However, the study investigates the impact of fragmented rainforest vegetation on the survival strategy of the Francolin bird (*Francolin bicalcaratus*) in Bangem region. The study was conducted over a 5-month period in two forest sites with varying levels of fragmentation, a contiguous primary forest, and a highly fragmented edge habitat. Data was collected through direct observations during the first 15 days of each month. The results indicate that Francolin birds exhibit significant behavioral adaptations in response to forest fragmentation. Nonetheless, fragmented rainforest vegetation significantly associated with aggregation of francolin birds  $r=0.650$   $P=0.000$ , climatic conditions  $r=0.514$   $P=0.000$ , and food-type  $X^2=59.312$   $df=2$   $P=0.000$  respectively. The conversion of rainforest habitats into a mosaic of forest fragments and cropland has had a significant impact on the aggregation and distribution patterns of Francolin birds (*Francolin bicalcaratus*) in Cameroon's Southwest Region. Besides, there was a significant relation between Fragmented rainforest vegetation and the hourly day-period  $X^2=66.086$   $df=2$   $P=0.000$ . Francolins are known to have distinct activity patterns throughout the day, with specific times of the day when they are more active in foraging, breeding, and other behaviors. More so, Anthropogenic activity and seasonal changes associated significantly  $X^2=68.159$   $df=1$   $P=0.000$ . Furthermore, the social behaviour of francolins and their vocalization frequency revealed a significant link  $X^2=32.417$   $df=6$   $P=0.000$ . The study highlights the remarkable plasticity of Francolin birds in adapting to habitat changes. However, the long-term viability of these survival strategies under ongoing deforestation and fragmentation remains uncertain. These findings underscore the importance of maintaining large, contiguous forest tracts to support the full range of Francolin behavioral and ecological adaptations.

**Keywords:** Francolin birds, Habitat fragmentation, Primary Forest, Survival strategy, Vegetation

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## IMPACT OF HOSTILITIES ON THE ENVIRONMENT OF THE NORTHERN REGION OF UKRAINE

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### ABSTRACT

The Chernihiv region is located in the north of Ukraine, on the border with Russia and Belarus. Therefore, it has had a significant negative impact and horrific consequences from Russia's military aggression. During the period of the Russian military siege of Chernihiv (37 days), the aggressor state was causing irreparable and catastrophic damage. At the same time, indirect losses may manifest in the coming years and decades and these consequences are unpredictable. And now the enemy fired and destroys the border of the region every day. Undoubtedly, the war had a very negative impact on each component of the environment: phytocenosis, microbiocenosis, zoocenosis, hydrobsein, air, soil. The consequences will be long -term and will not only be local but also global.

**Key words:** impact of hostilities, environment, northern region of Ukraine.

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## ECOLOGICAL CONSCIOUSNESS AND SUSTAINABLE DEVELOPMENT: BRIDGING ENVIRONMENTAL EDUCATION WITH GREEN ECONOMY PRACTICES

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### ABSTRACT

This article explores the core discourses shaping the concept of sustainable development (SD), with an emphasis on its multidimensional nature. The study identifies seven key discursive axes: environmental, economic, social, political, prognostic, ethical, and developmental sustainability. The analysis highlights the pivotal role of ecological consciousness, advocating for the integration of environmental education to promote sustainable practices across various societal groups, including youth and professionals. A central argument is the need for a holistic approach that considers the biosocial unity of humans, balancing the natural and social dimensions of human existence. The study further examines the relationship between natural capital and development, endorsing a transition to a "green" economy focused on resource conservation and minimizing environmental impacts. The ethical dimension of SD, particularly the responsibility toward future generations, is emphasized as crucial for sustainable decision-making. The paper calls for further research on the efficacy of environmental education and the practical implementation of SD policies across different sectors and regions. Acknowledging the limitations of current data and the challenges of incorporating ethical principles into policy frameworks, the article provides a comprehensive philosophical and practical foundation for understanding sustainable development and addressing its future challenges.

**Keywords:** Environmental consciousness, Natural capital, Ecological ethics, Biosocial unity, Sustainability education, Political sustainability

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## EPIDEMIOLOGIC DATA OF COVID-19 IN CHILDREN

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### ABSTRACT

**Objective:** This study aims to provide a comprehensive understanding of the epidemiology, clinical presentation, and risk factors associated with hospitalization in pediatric COVID-19 cases. **Material and Methods:** This cross-sectional study included 663 children aged 0-14 who presented to the Emergency Department of the Pediatric Hospital in Elbasan, Albania, between April 2020 and September 2024, with suspected COVID-19 symptoms. Sociodemographic and clinical data were collected, including symptomatic status, source of infection, underlying conditions, and disease outcomes. Multivariable logistic regression analysis was used to identify risk factors for hospitalization. **Results:** The mean age of children was 6.8 years, with 88.7% symptomatic and 11.3% asymptomatic. Among symptomatic individuals, the most commonly reported symptom was fever, affecting 65.2% of the population. Upper respiratory symptoms were present in 44.5%, while 3.6% experienced lower respiratory symptoms. The majority (79%) experienced mild illness. In the multivariable analysis, infants <1 year had a significantly higher likelihood of hospitalization compared to children aged 5-9, (OR) of 1.83 (95% CI: 1.11–3.98, p=0.029). Also, lower respiratory symptoms, OR of 2.1 (95% CI: 1.13–5.31, p=0.012) and children with underlying conditions were at higher risk of hospitalization, OR of 2.7 (95% CI: 1.15–7.40, p=0.001). The majority of children (97.7%) recovered fully, with only 2.3% experiencing post-acute complications. **Conclusion:** This study emphasizes the importance of monitoring vulnerable subgroups, such as infants and those with respiratory symptoms or underlying conditions, to prevent severe outcomes and guide public health interventions.

**Keywords:** Pediatric COVID-19, Epidemiology, Risk factors, Hospitalization

