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# IMPORTANT

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**ABSTRACT. Introduction:** Interspecific interactions among tropical mesocarnivorous species and other mammalian trophic guilds have been poorly studied, despite their important implications in the survival, structure, demography, and distribution of these species. **Objective:** To analyze if sympatric mesocarnivores coexist or compete in the axis of the temporal and spatial niche. **Methods:** From January 2015 to December 2016 we recorded mammals with 26 stations of camera traps (in pairs, facing each other) along roads and animal trails, at Reserva de la Biosfera El Cielo, Tamaulipas, Mexico. We calculated temporal and spatial overlaps with the Czekanowski and Pianka indices. **Results:** We obtained 239 margay, 118 ocelot and 22 yaguarundi records. Margay and ocelot were nocturnal (75 % of their records) and had a high temporal overlap (0.85); whereas yaguarundi was fully diurnal, suggesting it may be able to coexist with the other two species. The three species used similar habitats: yaguarundi had 0.81 spatial overlap with margay and 0.72 with ocelot; spatial overlap between margay and ocelot was intermediate (0.53). **Conclusions:** There is no interspecific competition among these tropical mesocarnivores, probably due to antagonistic interactions leading to use of different parts of the temporal and spatial axes.

- \* Sample based on *Interacciones temporales y espaciales de mesocarnívoros simpátricos en una Reserva de la Biosfera: ¿coexistencia o competencia?* By R. Carrera-Treviño, et al. (*Revista de Biología Tropical* 66, 3 (2018): DOI 10.15517/rbt.v66i3.30418

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# IMPORTANTE

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**RESUMEN. Introducción:** Las interacciones entre especies de mesocarnívoros tropicales y otros gremios tróficos de mamíferos han sido muy poco estudiadas, a pesar de sus importantes aplicaciones en la supervivencia, estructura, demografía, y distribución de estas especies. **Objetivo:** Analizar si los mesocarnívoros simpátricos coexisten o compiten en el eje del nicho temporal y espacial. **Métodos:** De enero 2015 a diciembre 2016, registramos mamíferos con 26 estaciones de cámaras trampa (en pares, una frente a la otra) a lo largo de caminos y veredas, en la Reserva de la Biosfera El Cielo, Tamaulipas, México. Calculamos el traslape temporal y espacial con los índices de Czekanowski y Pianka. **Resultados:** Obtuvimos 239 registros de margay, 118 de ocelote y 22 de yaguarundi. El caucel y el ocelote son nocturnos (75 % de sus registros) y mostraron un alto traslape temporal (0.85); mientras que el yaguarundi fue totalmente diurno, sugiriendo que puede coexistir con las otras dos especies. Las tres especies usaron hábitats similares: el yaguarundi tuvo un traslape espacial de 0.81 con el caucel y de 0.72 con el ocelote; el traslape espacial entre el caucel y el ocelote fue intermedio (0.53). **Conclusiones:** No hay competencia interespecífica entre estas especies de mesocarnívoros tropicales, probablemente debido a interacciones agresivas que conducen al uso de partes diferentes de los ejes temporal y espacial.

- \* Ejemplo basado en *Interacciones temporales y espaciales de mesocarnívoros simpátricos en una Reserva de la Biosfera: ¿coexistencia o competencia?* Por R. Carrera-Treviño, et al. (*Revista de Biología Tropical* 66, 3 (2018): DOI 10.15517/rbt.v66i3.30418

## PREFACIO

La vitalidad de una institución como la Universidad de Costa Rica se consolida al seguir un camino ascendente hacia la calidad académica. Particularmente, el Bachillerato, la Licenciatura y el Posgrado en Biología, han demostrado a lo largo del tiempo, su dinamismo e interés por mantener a la vanguardia un plan curricular y por establecer vínculos que les permita continuar con la solidez, rigurosidad y fortaleza que distingue a la Escuela de Biología. Ahora, a 60 años de su nacimiento, somos testigos de su desarrollo y del éxito que ha alcanzado al formar profesionales comprometidos con su labor, ya sea en el campo de la investigación, la docencia y la acción social, mediante el excelente desempeño que han tenido en instituciones públicas o en empresas privadas.

Desde su fundación en 1957, la Escuela de Biología ha graduado 1 293 bachilleres, 255 licenciados, y desde 1975 a 370 estudiantes de posgrado. Su producción académica incluye más de 2 760 artículos científicos, libros y capítulos de libro; y en la actualidad genera, anualmente, más de 85 publicaciones. Todos estos logros representan un gran orgullo para la comunidad universitaria, pues estos aportes contribuyen al beneficio del país. Por eso, es de suma satisfacción el que sus egresados y egresadas, sean destacadas personas investigadoras a nivel nacional e internacional, dedicadas a diversas temáticas como la taxonomía, ecología, genética, botánica y la zoología, entre otras, lo que ha permitido reforzar la formación de varias generaciones de estudiantes de educación básica hasta posgrado, dentro y fuera del país.

Esta Unidad Académica recibe distinguidas personas investigadoras, nacionales y extranjeras, interesadas en el estudio, protección y conservación de la biodiversidad; además, cuenta con importantes colecciones biológicas representativas de plantas y animales; entre el Museo de Zoología y el Herbario hay más de 5 millones de especímenes. Aunque su materia principal ha sido la Biología Evolutiva y Sistemática; la biología se ha desarrollado a tal grado que, actualmente se realizan intensos estudios en ecología, conservación, manejo de recursos naturales, genética y biotecnología, para desarrollar, junto con la medicina y otras ciencias afines, nuevas investigaciones sobre cáncer de mama, estudios genéticos en enfermedades degenerativas y neuropsiquiátricas. En este sentido, la Escuela de Biología aporta al desarrollo de la ciencia con investigaciones sobre la diversidad de insectos acuáticos y especies marinas, el papel de las decoraciones en las telas de arañas, el efecto de los ambientes urbanos en la comunicación de las ranas, así como aplicaciones y beneficios de la biotecnología, entre otras áreas.

Por lo tanto, a lo largo de este volumen conmemorativo, los lectores podrán constatar la producción de su personal académico e investigador y de estudiantes de la Escuela de Biología, la cual ha crecido y desarrollado de manera adecuada y pertinente. Podemos, entonces, concluir con satisfacción, después de estos 60 años, que aquello que surgió como una pequeña célula ha madurado para conformarse en un cuerpo extenso y robusto con larga vida por delante.

***Daniel Briceño Lobo***

Director de la Escuela de Biología  
Universidad de Costa Rica

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