or low humidity environments were significant ($F = 8.16$, $df = 1/23$, $p < 0.001$). A significant time effect (repeated measure) indicated steady weight loss during the experiment ($F = 49.44$, $df = 11/253$, $p < 0.001$).

A 3-way RM-Anova on pooled data (environment × sex × time) showed that sex had no significant effect on weight loss. A 3-way RM-Anova on pooled data (environment × physiological state × time) across the non-significant factors revealed significant environment ($F = 28.53$, $df = 1/23$, $p < 0.001$), physiological state ($F = 24.88$, $df = 1/23$, $p < 0.001$), and time ($F = 128.42$, $df = 11/253$, $p < 0.001$) main effects, as well as significant environment × time ($F = 37.27$, $df = 11/253$, $p < 0.001$) and physiological state × time ($F = 21.07$, $df = 11/253$, $p < 0.001$) interactions.

Neither species nor sex has an effect on desiccation, and our findings parallel those of DAVIES and EDNEY[2]; dead spiders lose weight more rapidly than live ones. They also found that spiders killed more recently lost water slower than spiders that were long dead and assumed the mechanism for reducing water loss is steadily lost after death.

The data indicate living spiders regulate evaporative water loss while dead spiders do not. Further, DAVIES and EDNEY[2] noted identical evaporation rates with the spiracles open or closed, and LEVI[7] has shown Lycosids to have vestigial tracheae. *Trochosa*[8] and *Pirata*[1,2] require high moisture and die quickly below 90% R.H. *Lycosa rabida* and *L. punctulata* survive for at least 96 h at 0% R.H. Only 3 spiders died during the experiment: the male *L. rabida* at 0% R.H. These spiders died between 9 and 48 h with no significant similarities in percent weight loss at death (range: 0.5% weight gain — 14.5% weight loss).

Dead spiders at high humidity lose water at the same rate as living spiders at low humidity, and those spiders living at high humidity lose water very slowly with little variability. The consistently greater weight loss of animals at low humidity suggests that humidity plays a significant role in water retention by spiders in their natural habitats.

Résumé. La vitesse de dessication de *Lycosa* n'est pas influencée par le sexe ou l'espèce. Du poids est perdu plus rapidement par des Araignées mortes que par les vivantes, et cela chez toutes les deux à 0% plus qu'à 80% d'humidité relative.

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Slimy Growth of Bacterial Colonies in the Subbactericidal Zone of Negrame

In an earlier report slimy growth of the colonies of *Bacterium anitratum* in the subbactericidal zone of some antibiotics was described[1]. The formation of this so-called 'slimy wall' in the subbactericidal zone of antibiotics was not observed with any other bacteria. Therefore, this phenomenon was suggested as a diagnostic help for identifying *Bacterium anitratum*.

Here, the formation of a slimy wall in the subbactericidal zone of Negrame (nalidixic acid) is reported. After 18 h of incubation at 37 °C, the colonies of enterobacter grown in the subbactericidal zone of this chemotherapeutic drug became slimy. This sliminess was less pronounced than with antibiotics[1] but still distinct. After prolonged incubation (at 37° and at about 22 °C) it became more pronounced. The phenomenon also varied slightly with the repeated tests and was not consistently dependent on the medium used. Mostly, it was limited to a narrow part of the subbactericidal zone of bacterial growth around Negrame.

Beside the slimy appearance there was no other macroscopic abnormality of the colonies in the subbactericidal zone of Negrame. The colonies were smooth and shiny. Microscopic examination of bacteria from these slimy colonies showed short to medium-sized bacilli, whereas bacilli from normal colonies were uniformly short.

Subcultured to agar without Negrame the slimy colonies grew in their normal non-slimy form already in the first subculture in 18 h.

There was no sliminess observed in colonies of enterobacter grown in the subbactericidal zone of antibiotics nor in that of sulfonamides.

We would like to add that in contrast to this phenomenon, the colonies of some other bacteria, and even of some other strains of enterobacter become non-slimy or less slimy in the subbactericidal zone of antibiotics and/or in that of Negrame.

Zusammenfassung. Bei Resistenzprüfungen von *B. anitratum* gegenüber Negram zeigten sich in der Hemmzone rund um die Plätzchen schleimige Kolonien.

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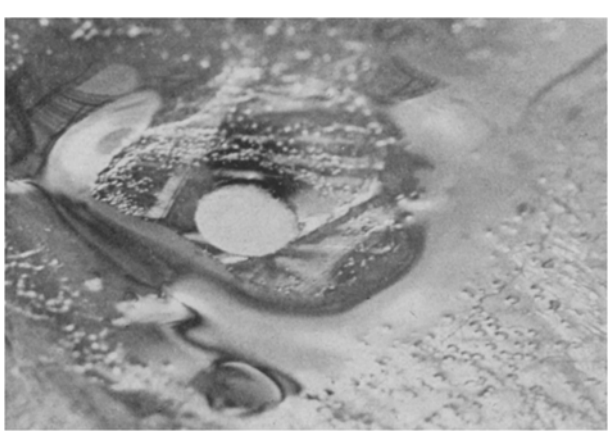

Slimy growth of bacterial colonies exposed to Negram.

[1] B. BRZIN, Path. Microbiol. *27*, 347 (1964).