

## TWO NEW SEROVARS OF SALMONELLA: *S. NATAL* AND *S. POTENGI*, ISOLATED FROM FLUVIAL WATER IN NATAL, RIO GRANDE DO NORTE STATE, BRAZIL

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*Two new serovars of Salmonella from estuary waters of Potengi River in Natal, Rio Grande do Norte, were isolated. They were named S. natal (9,12:z4, z24: -) and S. potengi (18:z: -). Both types belong to the subgenus I, or subspecies 1, though they showed atypical behaviour (KCN+).*

Investigating the level of bacteriologic contamination in the estuary of Potengi River, which flows through Natal, Rio Grande do Norte, to reach the Atlantic, Nóbrega (1982) registered the occurrence of thirteen serotypes or serovars distributed in eight serologic groups in the 64 strains of Salmonella isolates.

The antigenic characterization of these strains resulted in the findings of two new serovars of Salmonella belonging to Kauffmann's subgenus I (1966), or subspecies 1, as per the recently proposed taxonomic criterion of Le Minor, Véron & Popoff (1982 a and b).

The specifications as to collection of the specimens and to phases of enrichment, isolation and presumptive biochemical identification of the strains of Salmonella, were described in Nóbrega's investigation (1982). The media and methods employed for the subsequent biochemical reactions and serologic characterization were based on the recommendations of Costa & Hofer (1972), Edwards & Ewing (1972) and Le Minor, Véron & Popoff (1982 a).

As to the biochemical behaviour the two new serovars were classified as subgenus I, or subspecies 1, though they have atypically grown in medium with KCN.

The cultures labeled under number DOL<sup>o</sup> 159, 161 and 163, were identified as belonging to the serogroup D1 of Kauffmann-White's scheme, due to the antigenic somatic factors 9 and 12. The analysis of the flagellar structure proved it to be a monophasic microorganism (phase 1), represented by the complex Hz4, z24. Thus for this serovar the new antigenic formula was registered as: 9,12:z4, z24: -, being denominated *Salmonella natal* or *S. choleraesuis* subspecies *choleraesuis* serovar natal var. KCN+, in honor to Natal, the capital city of the State of Rio Grande do Norte, in northeast Brazil.

*Salmonella potengi* or *S. choleraesuis* subspecies *choleraesuis* serovar potengi var. KCN+ (DOL<sup>o</sup> 160, 164, 166 and 167), isolated from Potengi River, Natal, RN, therefore so denominated, belongs to the serogroup K of Kauffmann-White's scheme, also being monophasic, represented by factor Hz, resulting in the following complete antigenic compositions: 18:z: -.

These findings were confirmed at the WHO Collaborative Centre for Reference and Research on Salmonella, Institute Pasteur, Paris.

### RESUMO

Descrivem-se dois novos sorotipos de Salmonella, isolados de águas do estuário do rio Potengi, Natal, RN, que receberam as denominações de *S. natal* (9,12:z4, z24: -) e *S. potengi* (18:z: -). Ambos pertencem ao subgênero I ou subespécie 1, embora tenham tido comportamento atípico (KCN+).

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