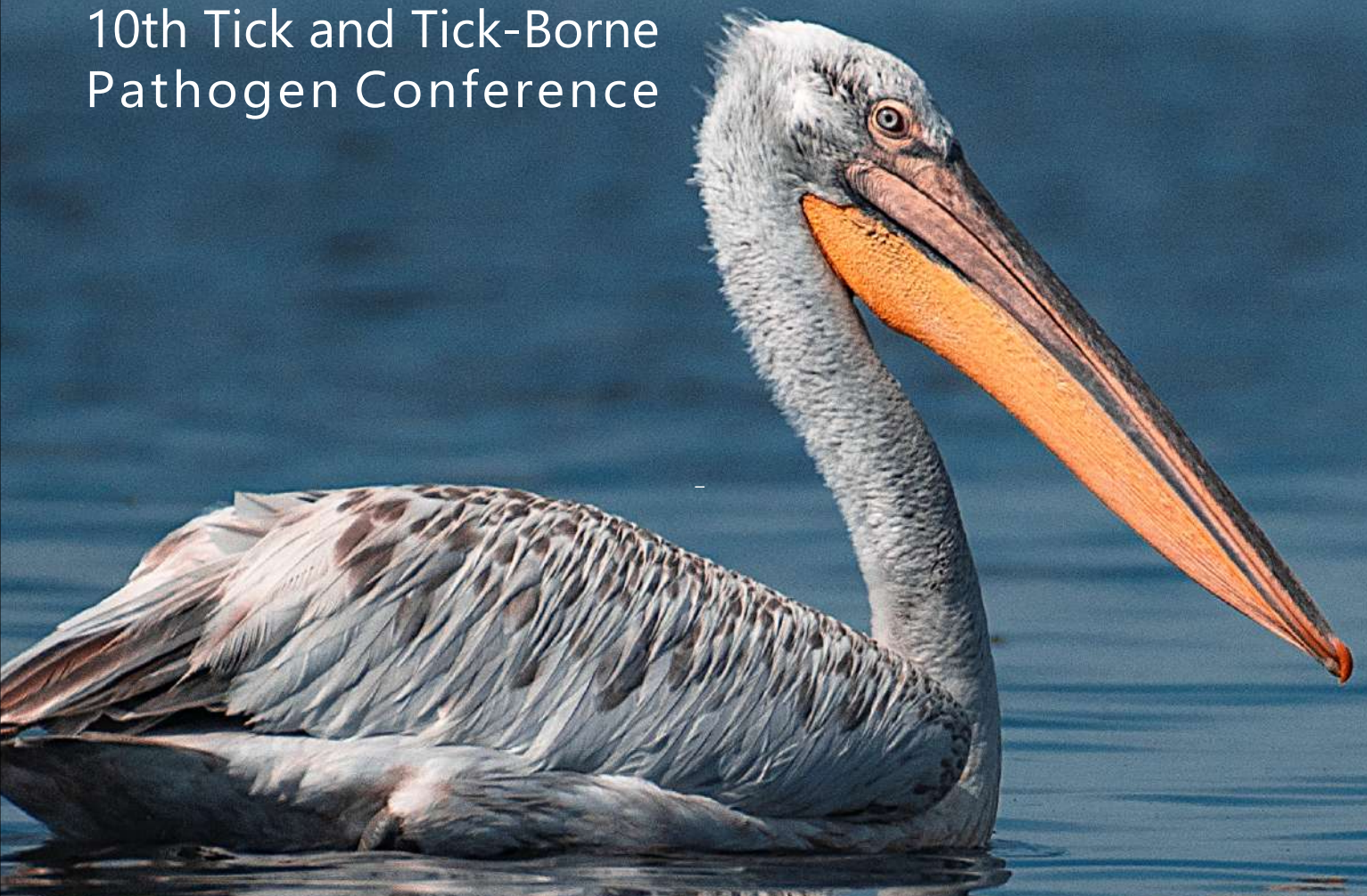


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Abstracts

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DT04 A One Health approach to tackle tick-borne diseases - analysis of surveillance initiatives in selected EU countries: The Netherlands, Spain and Italy

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Ixodid ticks and tick-borne diseases (TBD) are expanding their geographical range. At European level, EFSA and ECDC are involved in TBD surveillance and reporting, but surveillance activities vary among countries. To identify ideal elements for TBD monitoring and prevention, considering a One Health (OH) approach, we analysed the surveillance systems in place in some European countries. We applied the semi-quantitative evaluation protocol developed by the NEOH COST Action, to identify outcomes and assess the degree of OH implementation within the initiatives. At first, we analysed the surveillance system in The Netherlands, a country that has implemented a consultative structure to monitor and report zoonoses; the National Institute for Public Health & Environment coordinates the different project-based monitoring, research and educational activities on TBD. The level of transdisciplinary and trans-sectoral collaboration is high, regular meetings and on-line platforms enable communication and data sharing among actors; moreover, the non-scientific community is actively involved. The surveillance plan has yielded measurable outcomes (e.g., reduction in tick bites) and early detection of unexpected events (e.g., discovery of new TBD and vectors). In other European countries, such as Italy and Spain, TBD surveillance and reporting systems are based on compulsory notification. Although legislation seems quite relevant within these initiatives, law enforcement, alongside dedicated time and availability of economic resources, is rather fragmented and limited to the most severe health issues (e.g., TBE in Italy and CCHF in Spain). Veterinary and human medicine are the most involved disciplines, with the first prevailing in some local/regional contexts. Stakeholders are marginally considered and collaborations are mostly limited to local initiatives. Despite the existence of good communication channels, data sharing is somehow compartmentalized and mainly restricted to specific actors. Even so, the efficiency and preparedness of the health system from Spain was proven with the early detection of new emerging pathogens in ticks (e.g., CCHFv) and the subsequent detection of human cases. Research activities in Italy and Spain have mostly contributed to gain knowledge on the distribution of tick vectors at national level (e.g., ticks expanding their geographic range) and the discovery of new pathogens (e.g., *Borrelia miyamotoi*, *Neoehrlichia mikurensis*, 'Candidatus' *Rickettsia rioja*, etc.). Differences emerge in the TBD surveillance plans of the 3 countries, as well as the OH-scores. Although all TBD surveillance plans comply with the EU regulations, the initiatives characterized by trans-disciplinary collaboration may be more effective for the surveillance and prevention of TBD.