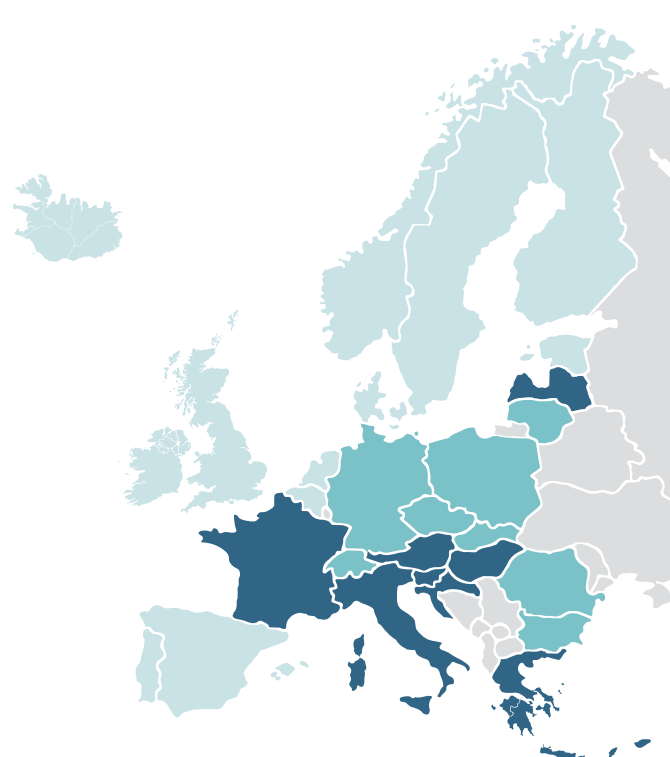


Nextmune interventions during the EVDC 2026 in Lille

Free Communication: T. Olivry and A. Mas-Fontao: Extract-versus component-based detection of Hymenoptera venom sensitization in European dogs, cats, and horses: prevalence, geographic variation, and species comparisons.

Thursday, August 27th, 16:00-17:15, Cutting Edge Program – Théâtre Marie Curie

Abstract: Hymenoptera venom allergy is increasingly recognized in companion animals, yet data on sensitization patterns across species remain scarce. We analyzed specific IgE responses to bee (Api m venom extract, Api m 1/2/3/5/10) and wasp (Ves v extract, Ves v 1/5) allergens in 34,151 dogs, 5,810 cats, and 4,612 horses tested with the PAX (Nextmune, Sweden) in Europe in 2025. Overall sensitization to bee venom was highest in horses (45%), followed by dogs (38%) and cats (12%), with wasp sensitization following the same rank order (31%, 23%, 9%, respectively). Dual sensitization occurred in 24% of horses, 16% of dogs, and 4% of cats. Geographic clustering identified three distinct European prevalence zones, with Southern and Central European countries consistently showing the highest rates. Component-resolved testing revealed substantial discordance with whole-extract results. Among animals positive for any bee component, 40–59% were negative to the parent extract, with Api m 1 accounting for the majority of missed cases across all species. For wasp, 63–75% of component-positive animals tested negative for the parent extract, predominantly due to Ves v 5 reactivity. Mono-sensitization (i.e., sensitization to a single component) predominated in all species (44–61%), with Api m 1 and Ves v 5 being the most frequent sole sensitizers. There was no meaningful association between the animal's age and the number of components to which it was sensitized. These findings demonstrate that whole-extract testing substantially underestimates true venom sensitization in veterinary patients and advocate for the routine integration of component-resolved diagnosis in clinical practice.

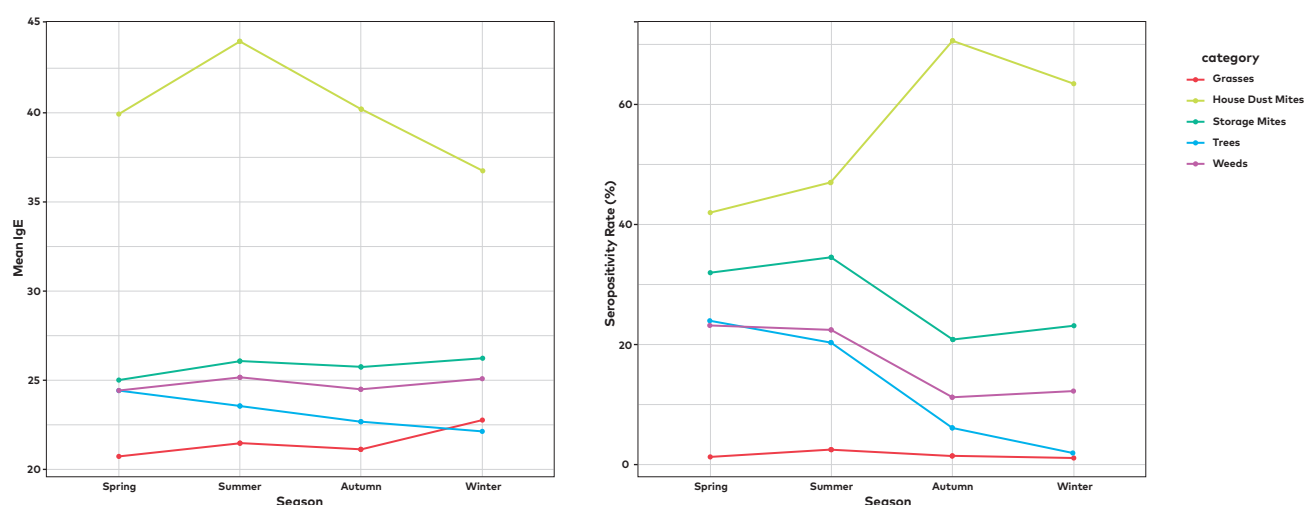
- 
- high prevalence
 - medium prevalence
 - low prevalence
 - not included in dataset

Legend: clustering of geographical distribution of bee and wasp sensitization in dogs, cats, and horses in 2025

Free Communication: T. Börjesson, J. Streets, and T. Olivry: Seasonality of serum allergen-specific IgE levels in Scandinavian dogs suspected of allergy.

Thursday, August 27th, 17:00-17:15, Cutting Edge Program – Théâtre Marie Curie

Abstract: The serological determination of IgE sensitizations in dogs with atopic dermatitis depends on the detection of elevated allergen-specific IgE (sIgE) levels against environmental allergens. However, sIgE levels can fluctuate between seasons, making the timing of sample collection critical. This retrospective, cross-sectional study aimed to evaluate the seasonal variability of pollen and mite-specific IgE in Scandinavian dogs suspected of allergic disease. We evaluated Pet Allergy Xplorer (PAX; Nextmune, Sweden) results from canine serum samples submitted across Scandinavia between March 2023 and February 2024. From 250 available allergens, nine pollen and five mite allergens were selected based on their high seroprevalence in Northern Europe. To ensure clinical relevance and avoid false-positive results, all samples with detectable sIgE against cross-reactive carbohydrate determinants were excluded, leaving 5,014 results for final analysis. While mean sIgE levels for several pollen and mite allergens exhibited statistically significant seasonal fluctuations, the overall variation was modest and might lack clinical relevance. Using the standard PAX threshold of 28 ng/ml, significant seasonal differences in seropositivity rates emerged across all categories and most individual allergens. Tree and weed pollen seropositivity rates peaked during spring and summer, whereas those for grass pollen showed no significant seasonal variation. In contrast, house dust mite seropositivity rates were significantly higher in autumn and winter, while those against storage mites followed the opposite seasonal trend. Our findings indicate that seasonal fluctuations influence sIgE levels and seropositivity rates, suggesting that the timing of serological testing should be considered when collecting samples in dogs suspected of allergy.



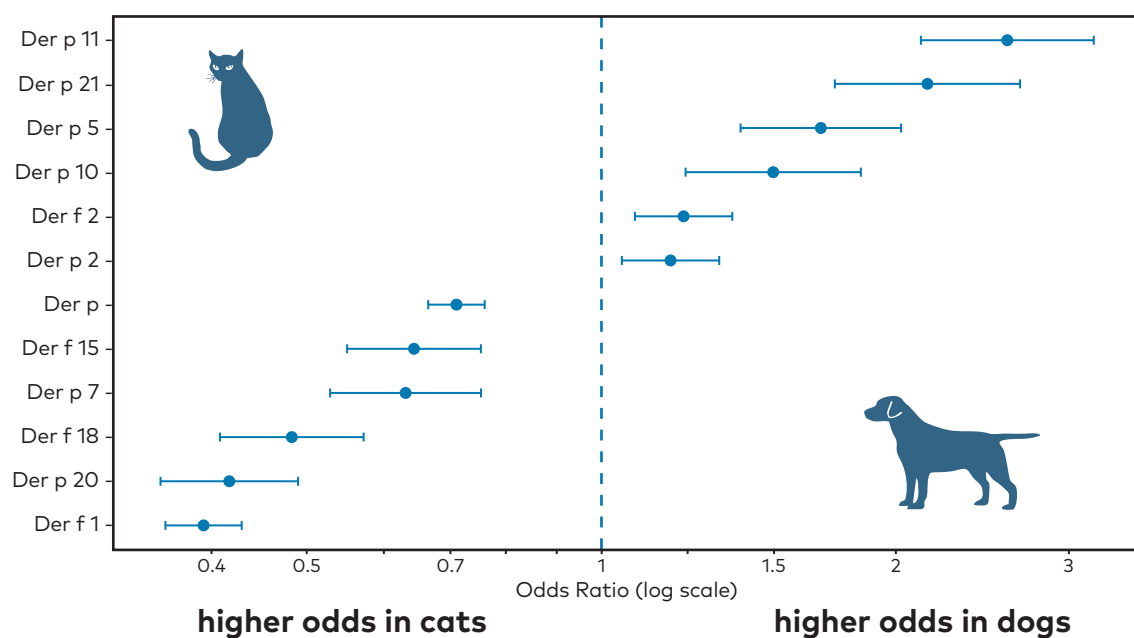
Legend: Mean IgE levels (left) and seropositivity rates (right) of five allergen categories in Scandinavian dogs in 2023-2024.

The paper can be downloaded with open access here: <https://doi.org/10.3390/vetsci13060522>

Free Communication: T. Olivry and A. Mas-Fontao: Seasonal and molecular patterns of house dust mite IgE sensitization in European dogs, cats, and horses.

Thursday, August 27th, 17:15-17:30, Cutting Edge Program – Théâtre Marie Curie

Abstract: House dust mites (HDM), primarily *Dermatophagoides farinae* (Df) and *Dermatophagoides pteronyssinus* (Dp), are major sources of environmental allergens for humans and companion animals. To characterize species-specific mite sensitization profiles and seasonal IgE variation, we analyzed PAX-based HDM-specific IgE results from 34,151 dogs, 5,810 cats, and 4,612 horses tested across Europe in 2025. Each species exhibited a distinct sensitization profile: seropositivity to the Df extract was similar across species, whereas dogs were significantly less frequently sensitized to the Dp extract than cats and horses (Chi2 test, FDR-corrected). Molecular-level differences were also evident: cats showed higher seropositivity to Der f 1, dogs to Der f/p 2 and Der p 11, and horses to Der p 5, 7, 10, 21, 23, and Der f 15. Among animals monosensitized to a single Dp component, Der p 2 predominated in dogs and cats, while Der p 23 was more prevalent in horses. Seasonal fluctuations in HDM-specific IgE further differed between companion animal species: dogs had significantly higher mean allergen-specific IgE in the summer for both extracts and most individual components (Mann–Whitney, Bonferroni-corrected); IgE levels from horses peaked in the autumn, and cats showed the least seasonal variation overall. These findings demonstrate that dogs, cats, and horses have species-specific HDM allergen sensitization profiles with distinct dominant components and divergent seasonal mite-specific IgE dynamics.



Legend: comparison of mite component sensitization in dogs compared to cats.

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