Ambrosia pollen risk of allergy in Spain: possible aggravation by cross-reactivity with other pollen taxa (Cupressaceae/Taxodiaceae and *Artemisia*)

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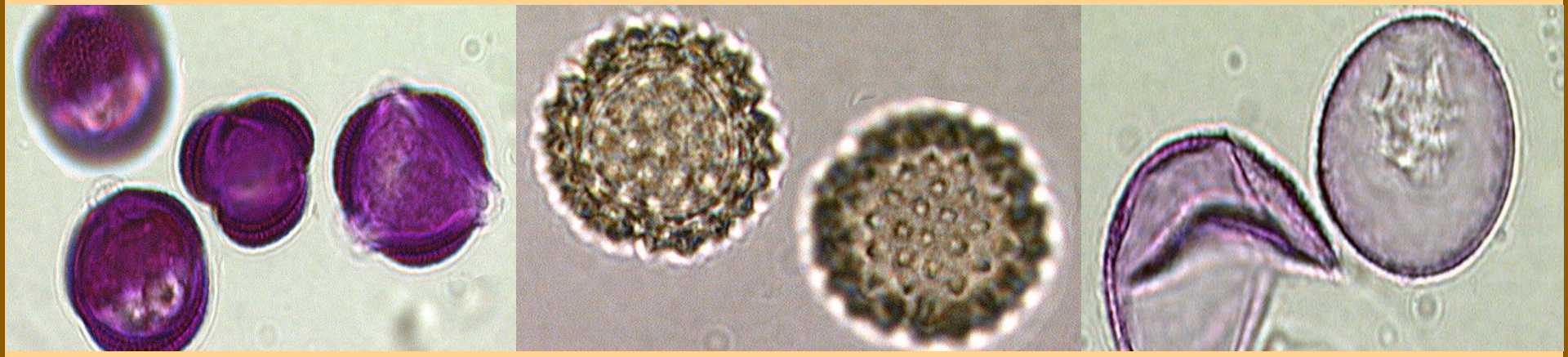


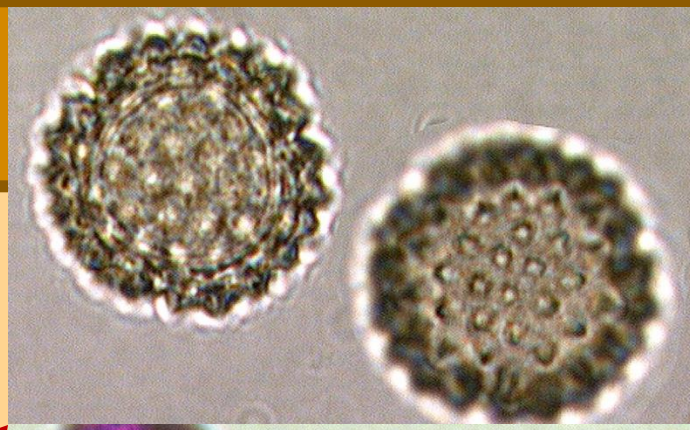
Overall idea

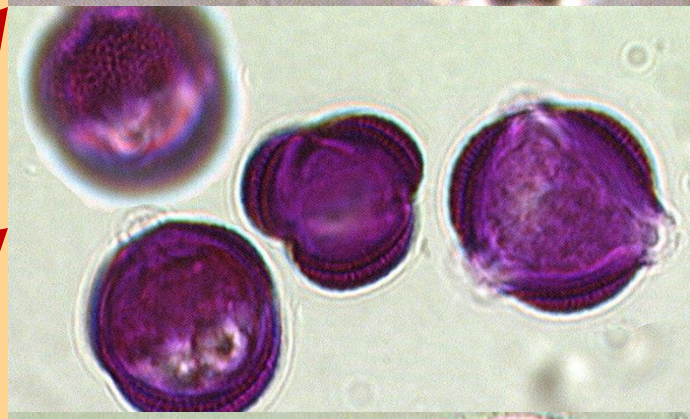
Even if *Ambrosia* pollen is not abundant in the atmospheric spectrum of Catalonia, the allergy risk could be very high, due to common allergens and **cross-reactivity** between major allergens from:

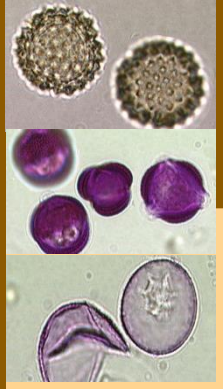
Ambrosia (Amb a 1)

Artemisia (Art v 1)

Cupressaceae/Taxodiaceae (Cry j 1)







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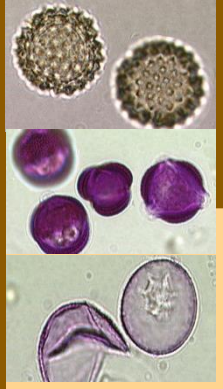
	Percentage over the TOTAL POLLEN				Percentage over the Asteraceae	
	Cupressaceae	Asteraceae	*Artemisia*	*Ambrosia*	*Artemisia*	*Ambrosia*
Barcelona	15,69%	0,49%	0,35%	0,02%	71,13%	3,88%
Bellaterra	16,27%	0,63%	0,42%	0,03%	67,25%	4,79%
Girona	12,42%	0,33%	0,15%	0,02%	46,44%	5,08%
Lleida	22,77%	1,62%	1,29%	0,02%	79,59%	1,04%
Manresa	18,90%	0,88%	0,44%	0,01%	50,26%	1,51%
Tarragona	26,93%	0,97%	0,74%	0,01%	75,87%	1,13%
Vielha	6,00%	1,72%	1,62%	0,00%	93,85%	0,04%
Roquetes-Tortosa	53,77%	0,29%	0,19%	0,00%	64,02%	0,08%
All stations	23,57%	0,75%	0,55%	0,03%	72,44%	3,49%

Table 1. Percentage of the pollen sampled for the taxa under study with respect to the Total Pollen count (left) and with respect to the total Asteraceae pollen recorded (right)



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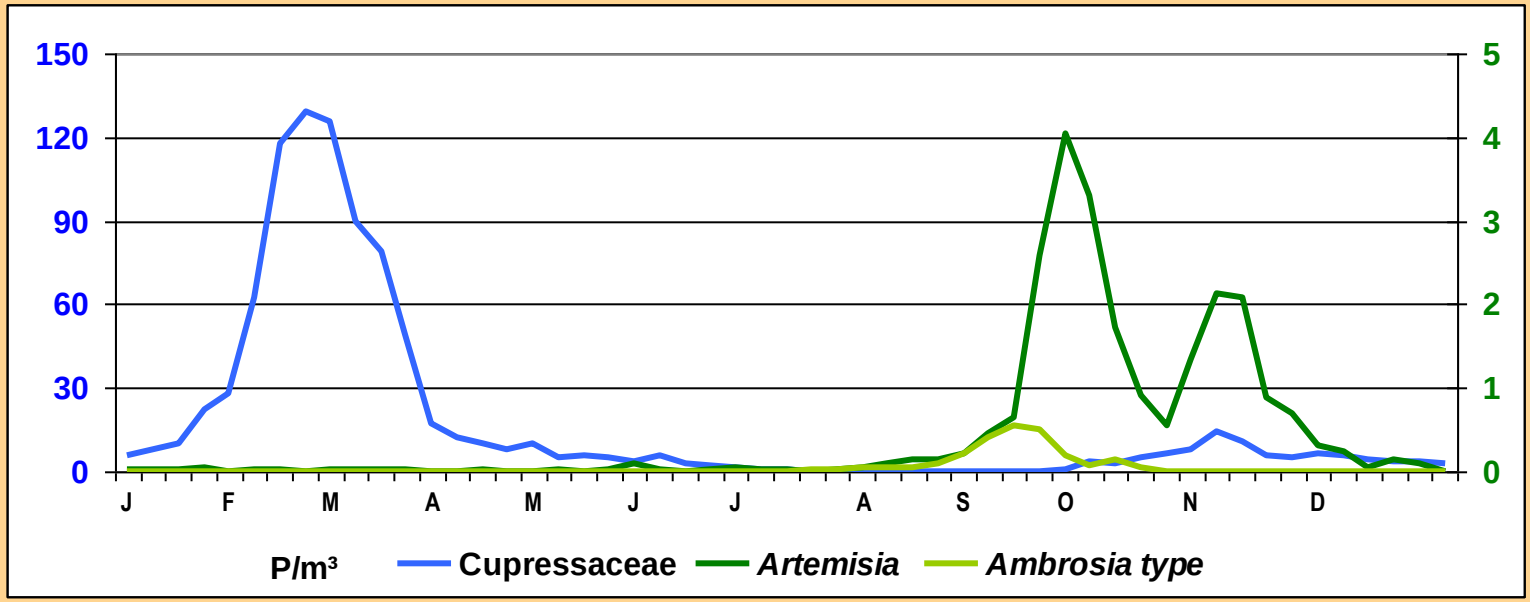

Figure 1. Seasonal pollen dynamics of the three pollen types under study in the station of Bellaterra

Individuals sensitized to any of these three pollen types are exposed to suffer from the symptoms out of the expected period and during most part the year. This situation could be aggravated if airborne *Ambrosia* pollen levels increase as it can be expected by its bioinvading character.

Thank you for your attention!

For further information: **http://lap.uab.cat/aerobiologia/en/**

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