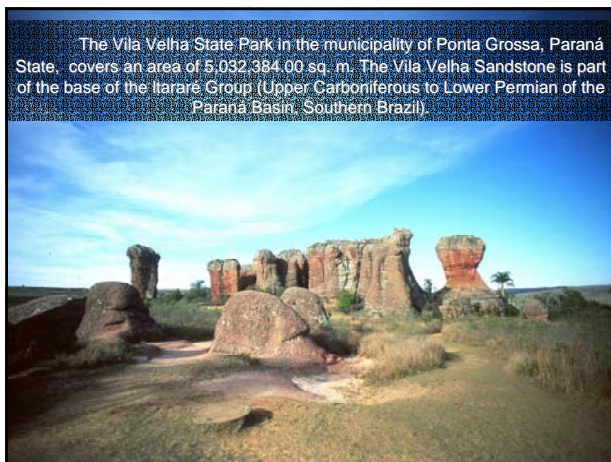
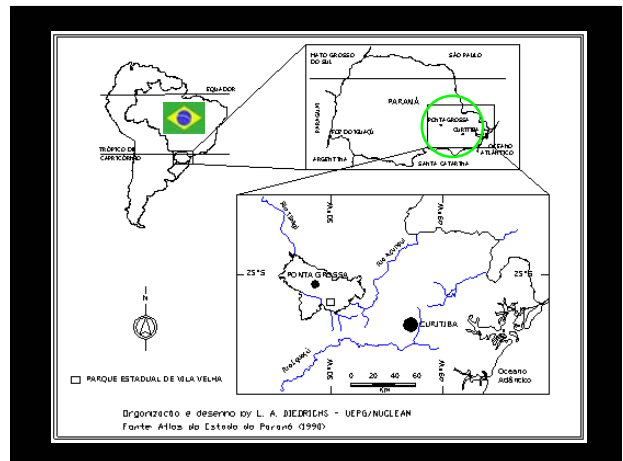


Presentation given at the 3<sup>rd</sup> Syrphidae Symposium,  
Leiden, The Netherlands, 2<sup>nd</sup> to 5<sup>th</sup> September, 2005



Presentation given at the 3<sup>rd</sup> Syrphidae Symposium,  
Leiden, The Netherlands, 2<sup>nd</sup> to 5<sup>th</sup> September, 2005

**Castrolanda** – is one of the largest dutch communities in Brazil. It is located in Paraná close to Vila Velha



### INTRODUCTION

Three years – September/1999 to August/2002

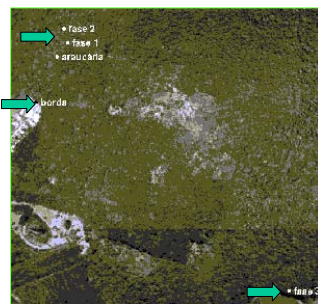
5 Malaise traps installed in 5 floristic different areas

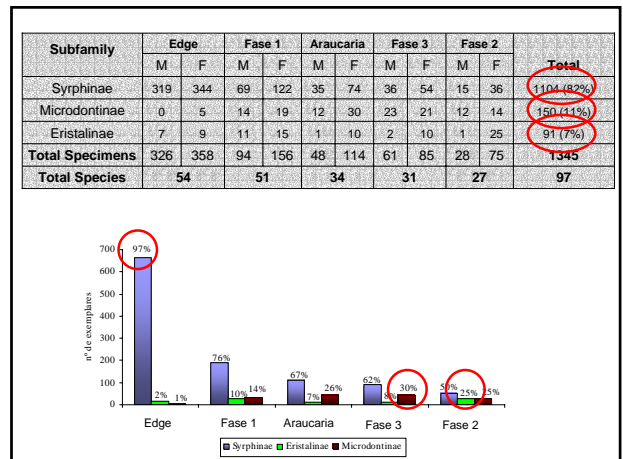
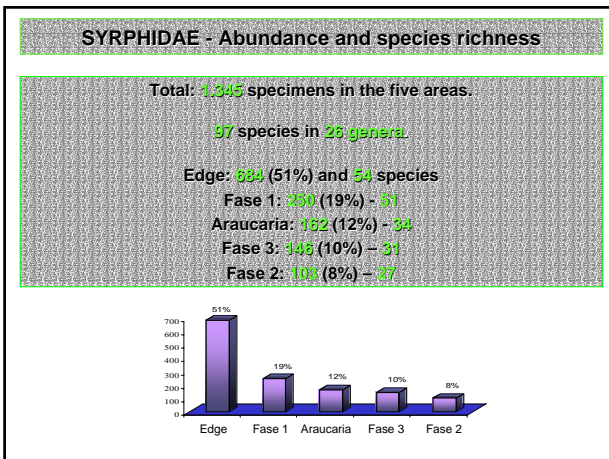
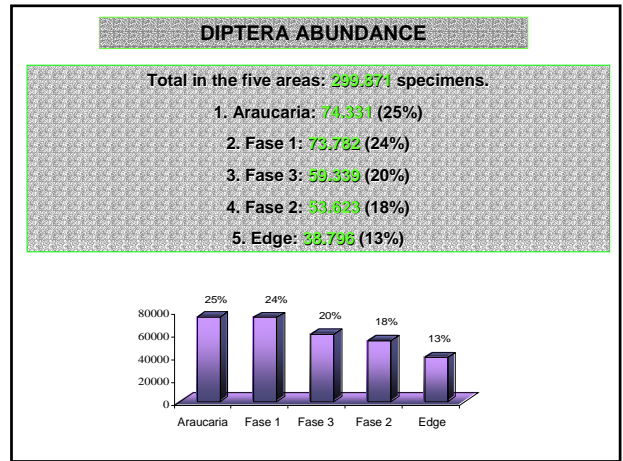
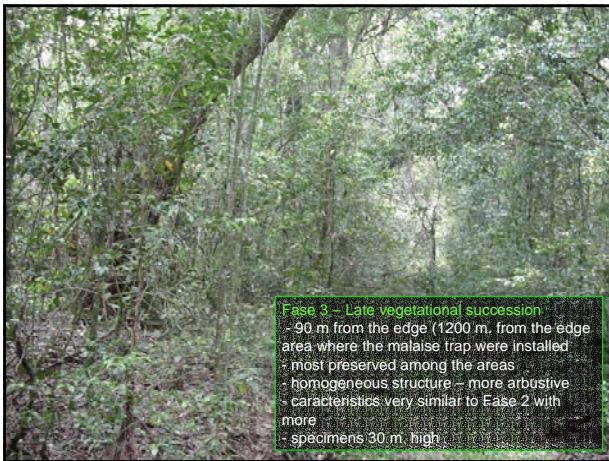
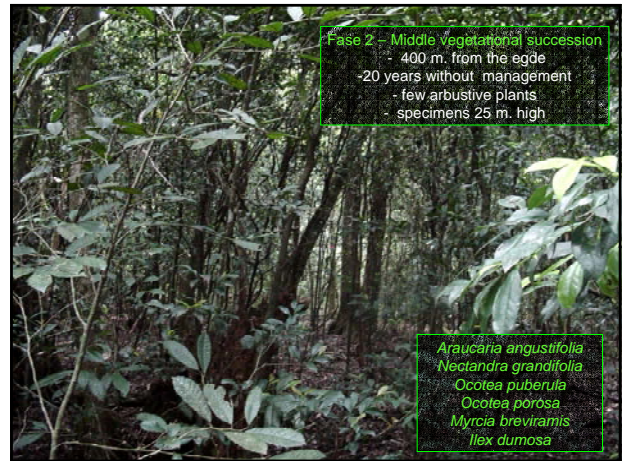
State Park of Vila Velha, Ponta Grossa, Paraná, Brazil.

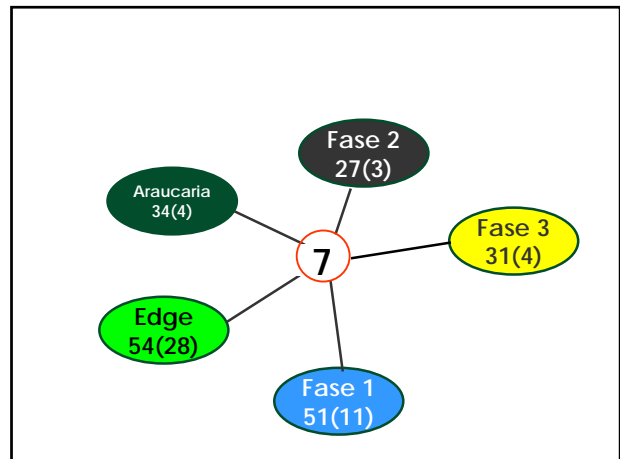
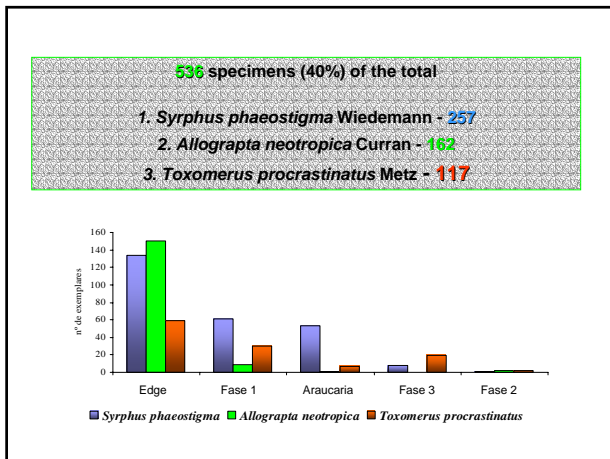
#### Main objective of the present work

To study the diversity of Syrphidae collected in five floristically different areas classified as edge, araucaria, early, middle and late vegetational succession within the State Park of Vila Velha, Ponta Grossa, Paraná, Brazil, during the first year (09/99 to 09/00).

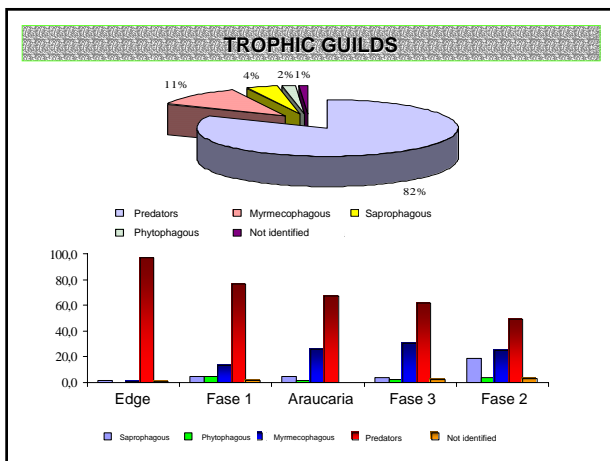
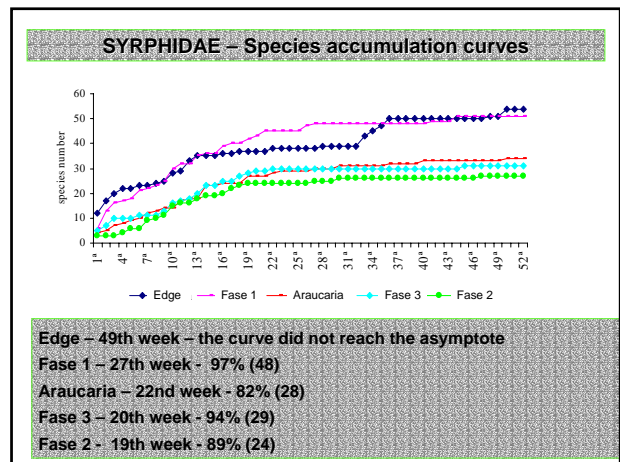
### Malaise traps location







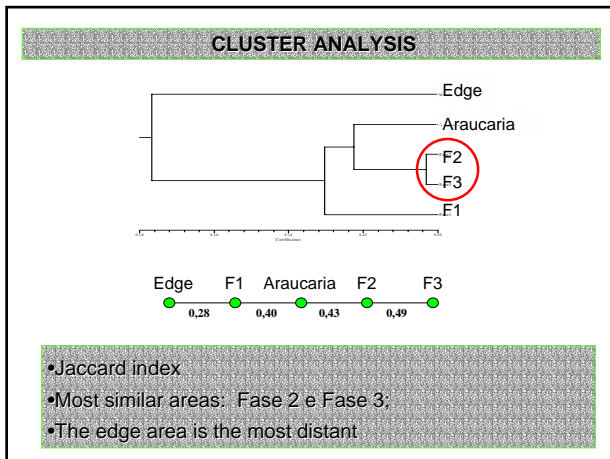
- Syrphus phaeostigma*;
- Toxomerus procrastinatus* Metz, 2001;
- Leucopodella gracilis* (Williston, 1891);
- Toxomerus tibicen* (Wiedemann, 1830);
- Mixogaster polistes* Hull, 1954;
- Copestylus selectum* (Curran, 1939)
- Ocyptamus funebris* Macquart, 1834.



**DIVERSITY INDICES**

Index	Areas				
	Edge	Araucaria	Fase 1	Fase 2	Fase 3
Shannon H'	1,16(5)	1,21(4)	1,35(1)	1,26(3)	1,28(2)
Brillouin	1.307,01(4)	1.579,37(2)	678,79(1)	1.052,79(5)	1.324,43(3)
Berger-Parker (d)	0,22(2)	0,33(1)	0,24(3)	0,14(4)	0,13(5)
Berger-Parker (1/d)	4,56(5)	3,05(4)	4,10(3)	7,36(2)	7,68(1)
Simpson (D)	0,11(2)	0,12(1)	0,09(3)	0,06(5)	0,06(4)
Simpson (1/D)	8,78(4)	8,01(5)	11,50(3)	15,92(1)	15,59(2)

➔ Araucaria – *Syrphus phaeostigma*  
 ➔ Most preserved areas – higher uniformity



**RICHNESS ESTIMATORS**

Areas	Spp	Singleton	Doubleton	Estimators					
				Chao 1	Chao 2	Jack1	Jack2	Bootstrap	MM*
Edge	54	25	6	106 ± 31	106 ± 31	79 ± 6	97	64	65
Araucaria	34	11	4	49 ± 12	56 ± 16	47 ± 4	56	40	59
Fase 1	51	23	8	84 ± 19	90 ± 22	76 ± 5	92	61	78
Fase 2	27	9	7	33 ± 5	35 ± 7	37 ± 3	41	32	36
Fase 3	31	12	6	43 ± 9	43 ± 9	43 ± 4	49	36	45

\*Michaelis-Menten