

EVALUATION OF INFESTATION LEVEL OF CATTLE BY THE TICK RHIPICEPHALUS MICROPLUS IN NEW CALEDONIA

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Cattle ticks are a real danger for ruminant breeding

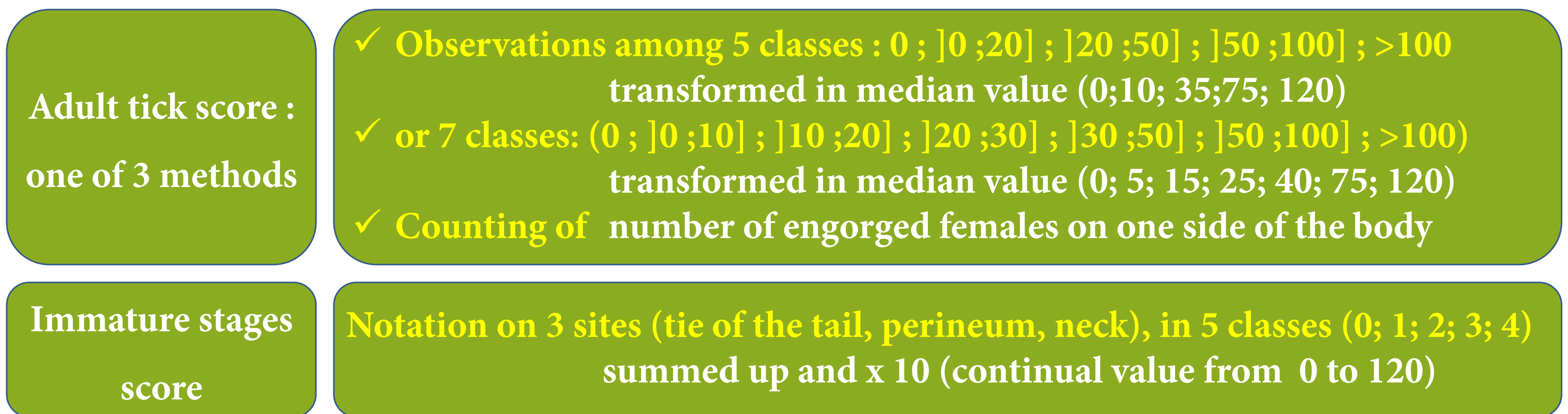
- ✓ Cause heavy losses in cattle (reduce growth, death)
- ✓ Are associated with infectious diseases
- ✓ Appear to become resistance to acaricides, worldwide



Alternative methods of control of tick infestation become essential

In this context the evaluation of the individual level of infestation by ticks maybe very useful
For this purpose, we worked out on an assessment grid,
which was tested for one year on 454 animals (882 scores), in 4 herds in New Caledonia

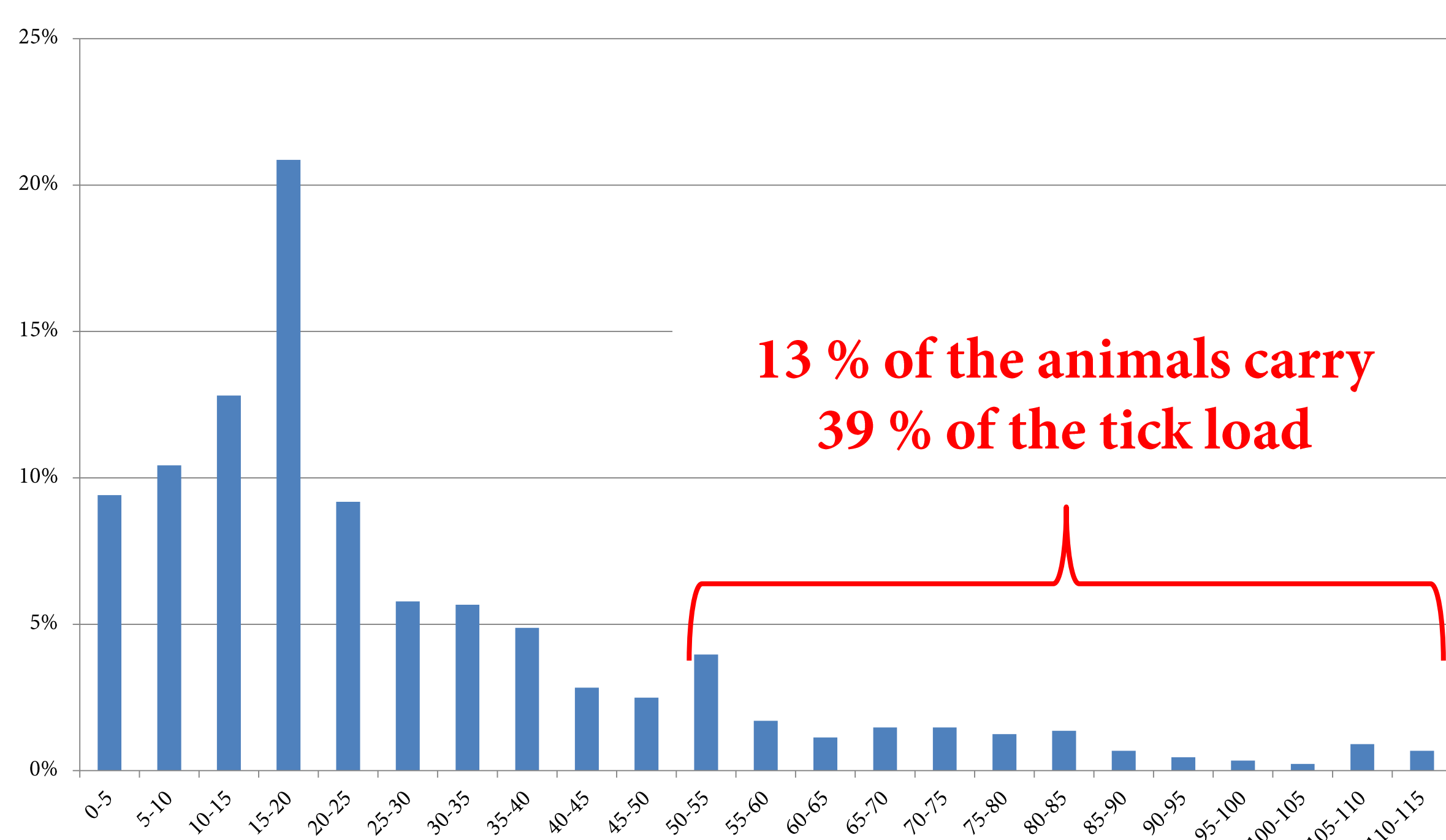
Principals of the assessment grid: two scores are given to each animal



final score of infestation = average of both adult + immature scores

This method of scoring of the tick infestation level is operational, and ...

- ✓ allows the evaluation of the mean herd level of infestation, for treatment strategy: scores vary among herd and date from 3 to 92 (mean = 29 +/- 23)
- ✓ permit the assessment of individual infestation : may be useful for culling decision of more susceptible or selection of more resistant animals (r = 42 %)
- ✓ reveals susceptibility differences among “sire families” intra-breed (p<.0001) : in Limousine (1 < “sire score” < 40) and Charolais (10 < “sire score” < 80)
- ✓ allows to compare the degree of infestation of various breeds in a given context



Distribution of the infestation score among individuals

Breed	Ln(score+1)	Std Err	Score	Diff. ¹
Brahman	1.80	0.23	6.0	a
Senepol	2.22	0.27	9.2	ab
Droughtmaster	2.24	0.34	9.4	abc
Belmont Red	2.65	0.31	14.2	abc
Bramousin	2.71	0.49	15.1	abcd
Santa Gertrudis	2.88	0.27	17.8	bcd
Limousin	3.01	0.16	20.3	cd
Charolais	3.71	0.30	40.8	d

¹ Different letters indicate a significant difference between breed (p<0.01)

Level of infestation according to the breed

