



Universidade do Algarve

Faculdade de Engenharia de Recursos Naturais

Mestrado Integrado de Engenharia Biológica

**Caracterização de Perfis Químicos de Amostras
de Heroína**

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Orientadores: Professor Dr. Álvaro Teixeira Lopes

Professora Dra. Maria Clara Costa

ANEXOS

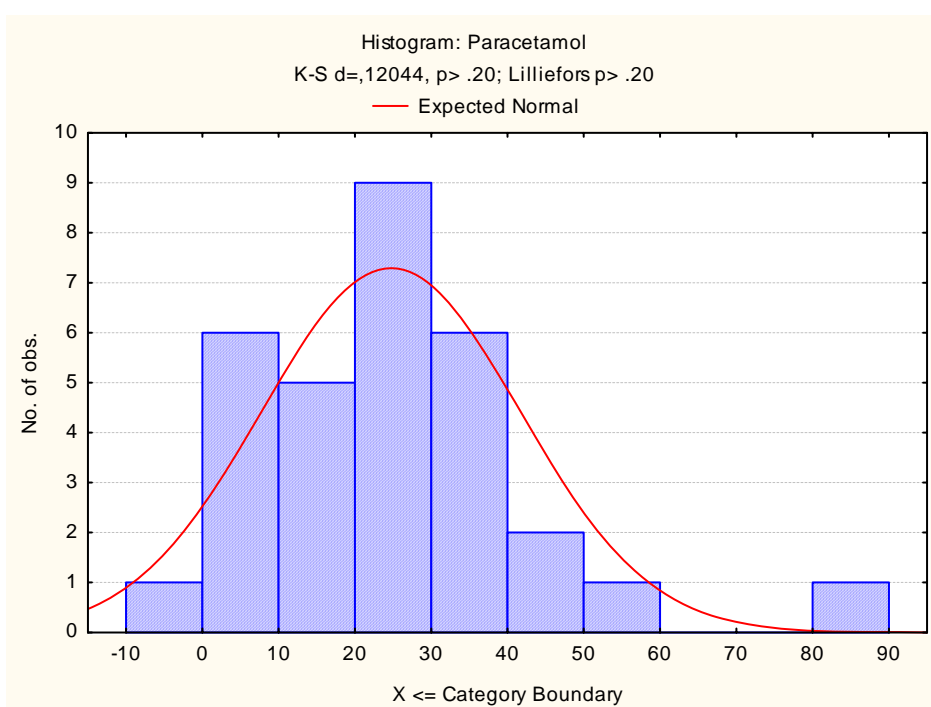
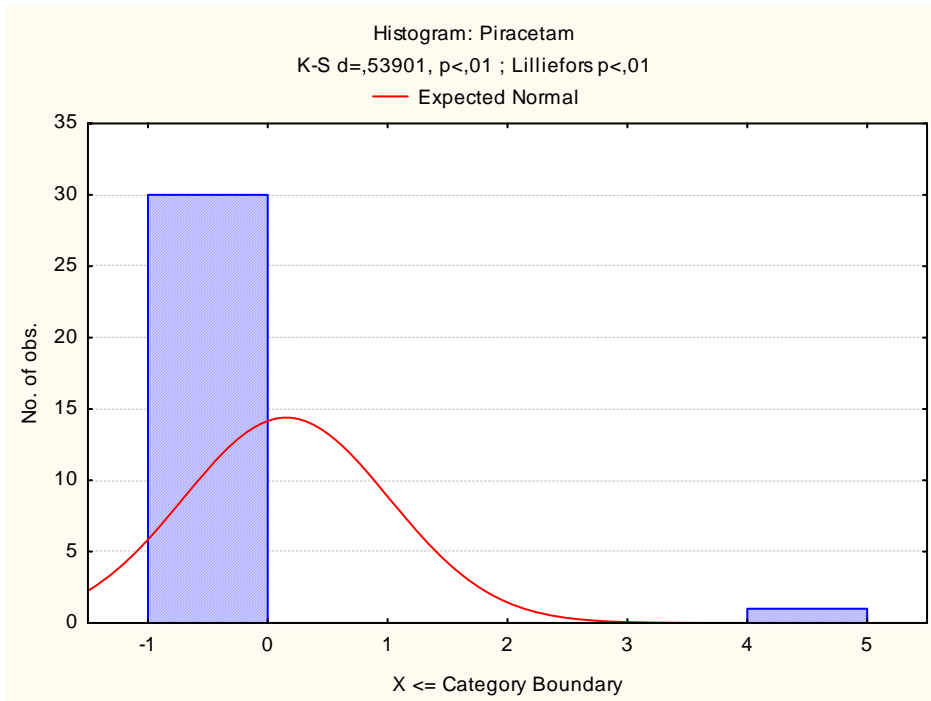
Abril / 2009

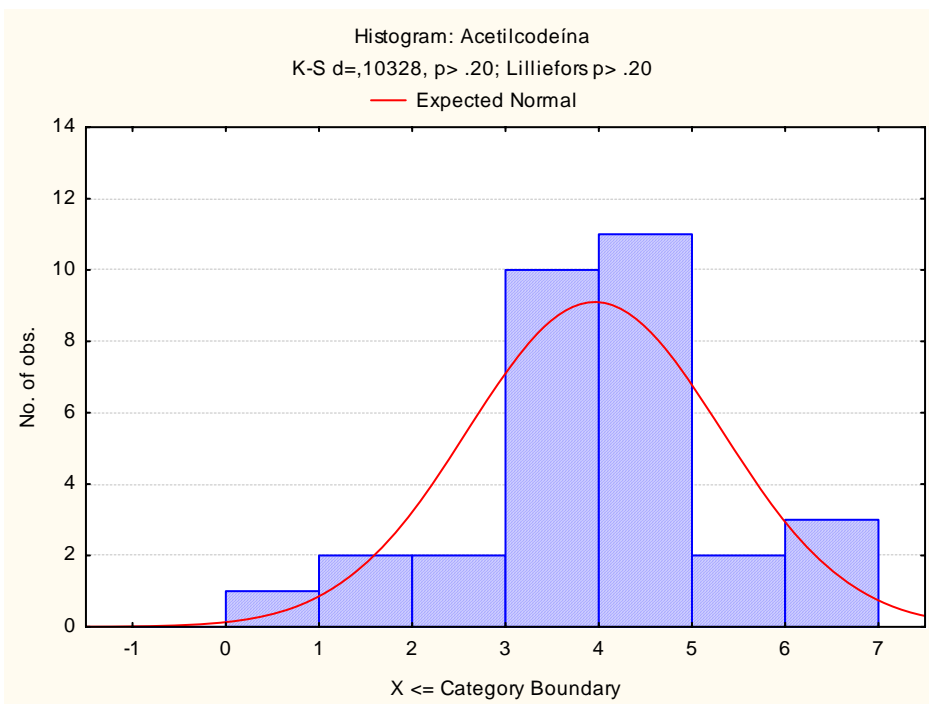
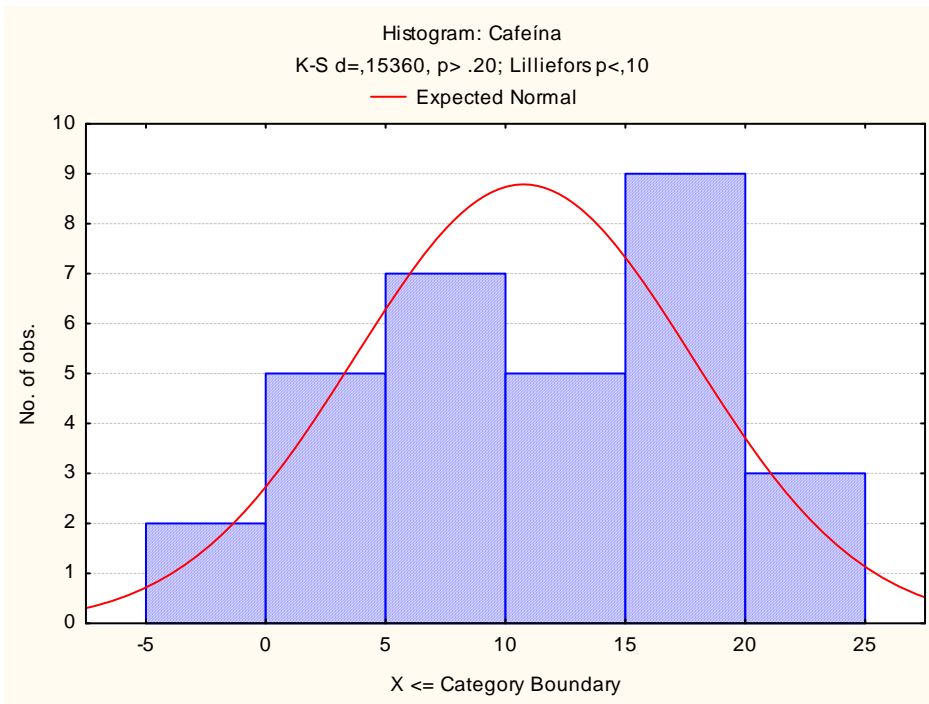
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Anexo I

Histogramas executados no programa *statistica*® para todas as variáveis analisadas em cada zona distinta de apreensão.





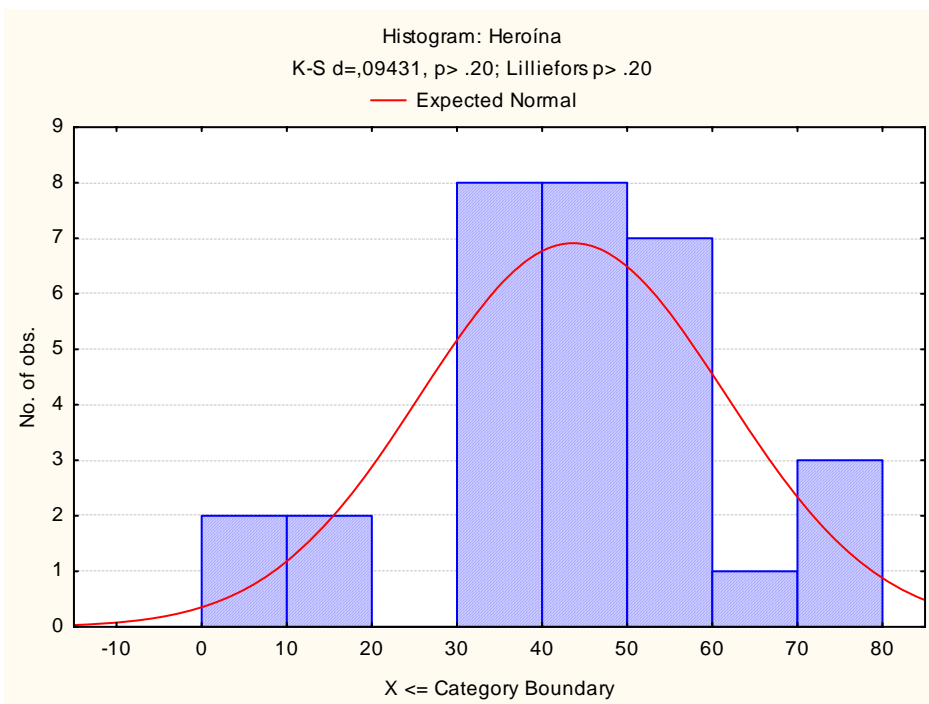
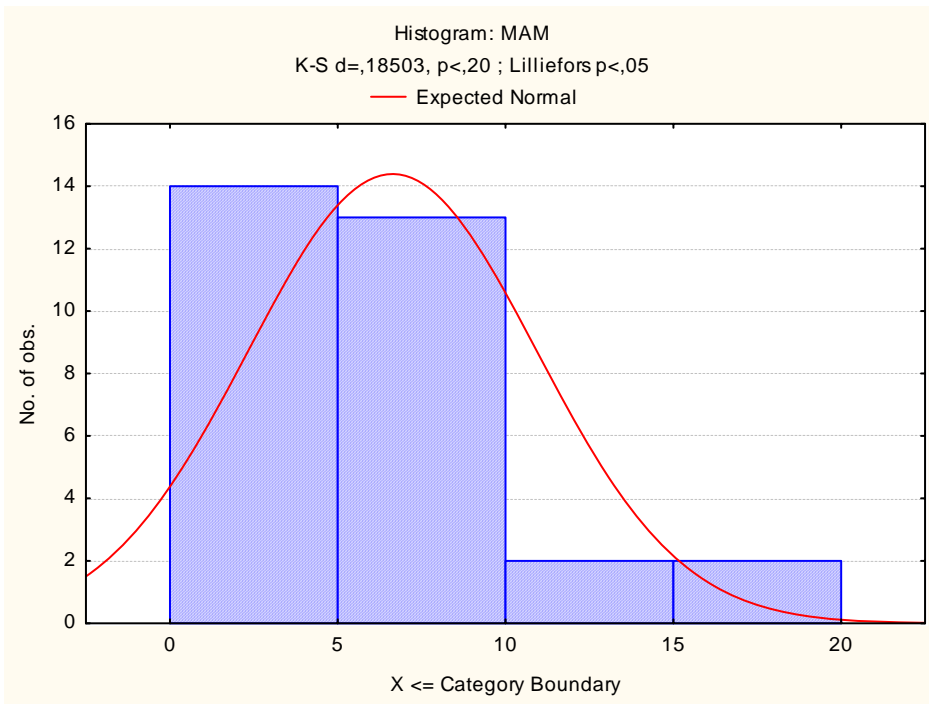
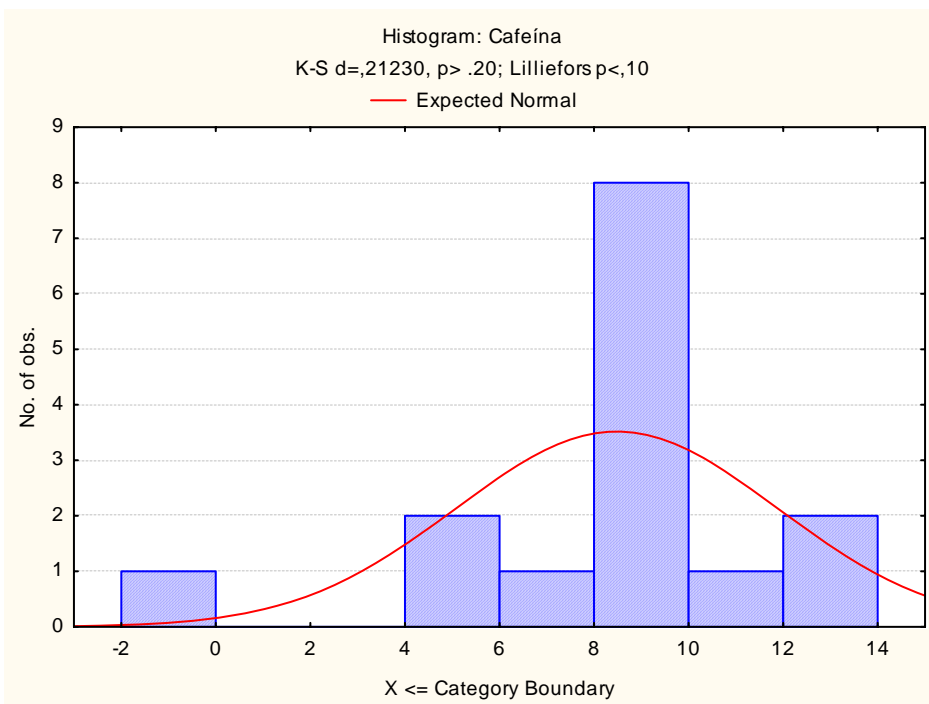
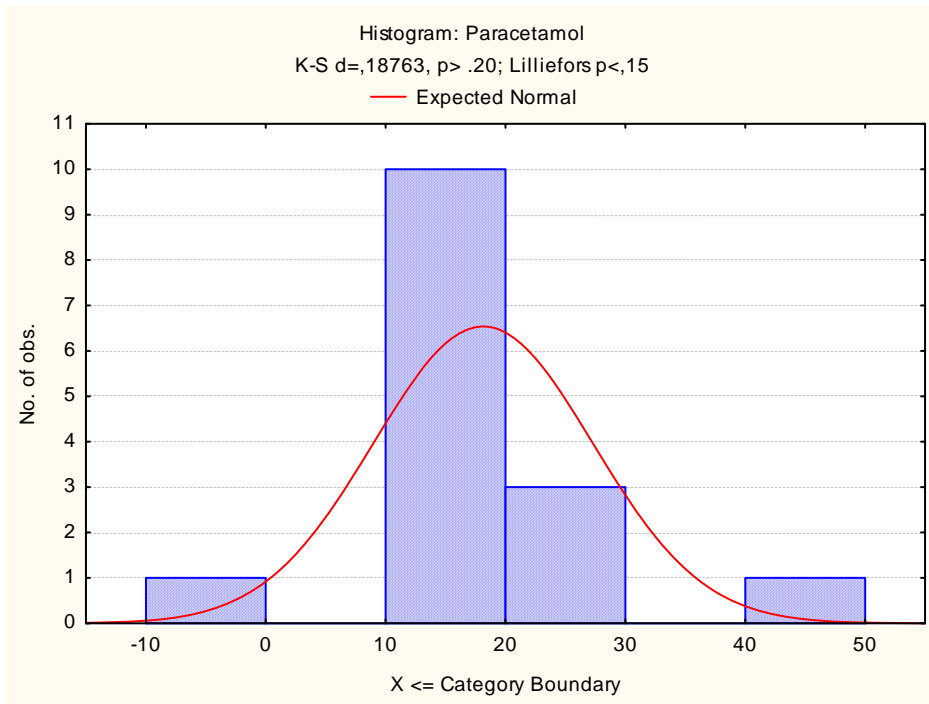
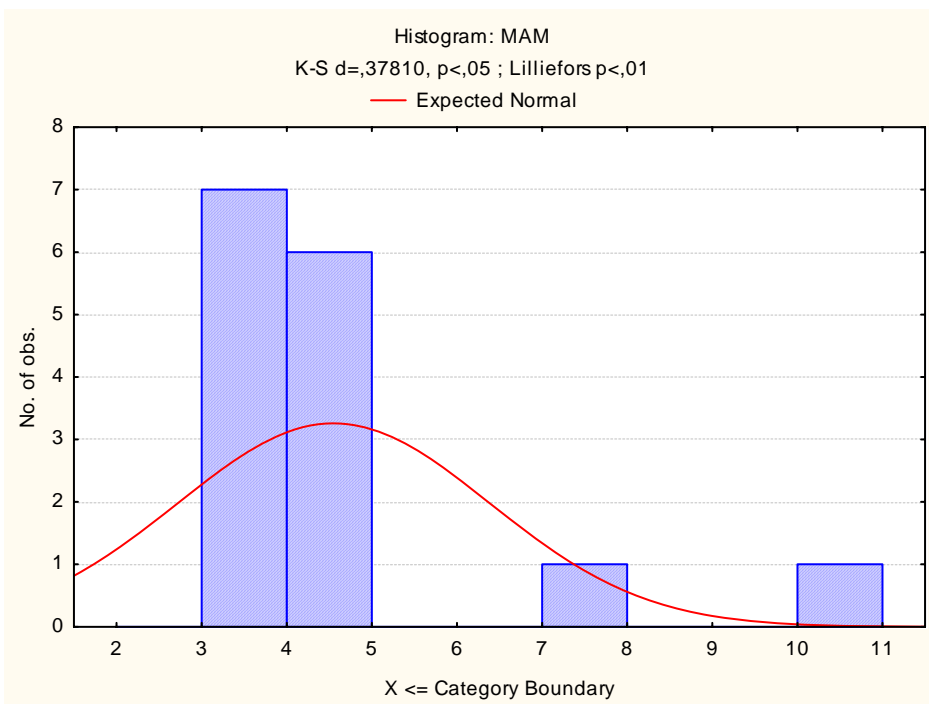
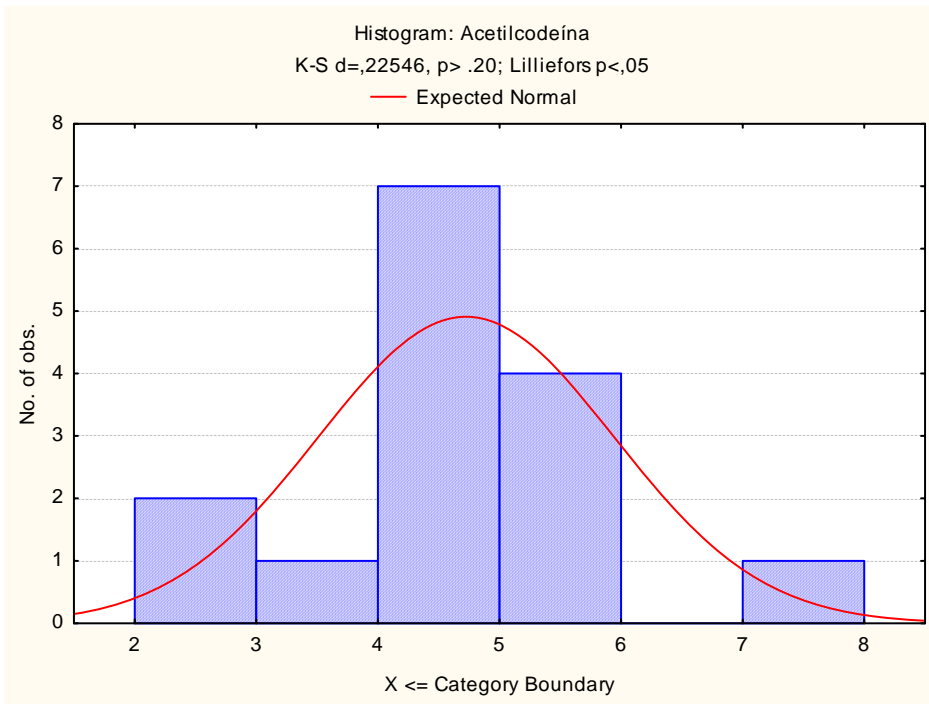


Figura 1A – Histogramas de todas as variáveis na zona de Lisboa.





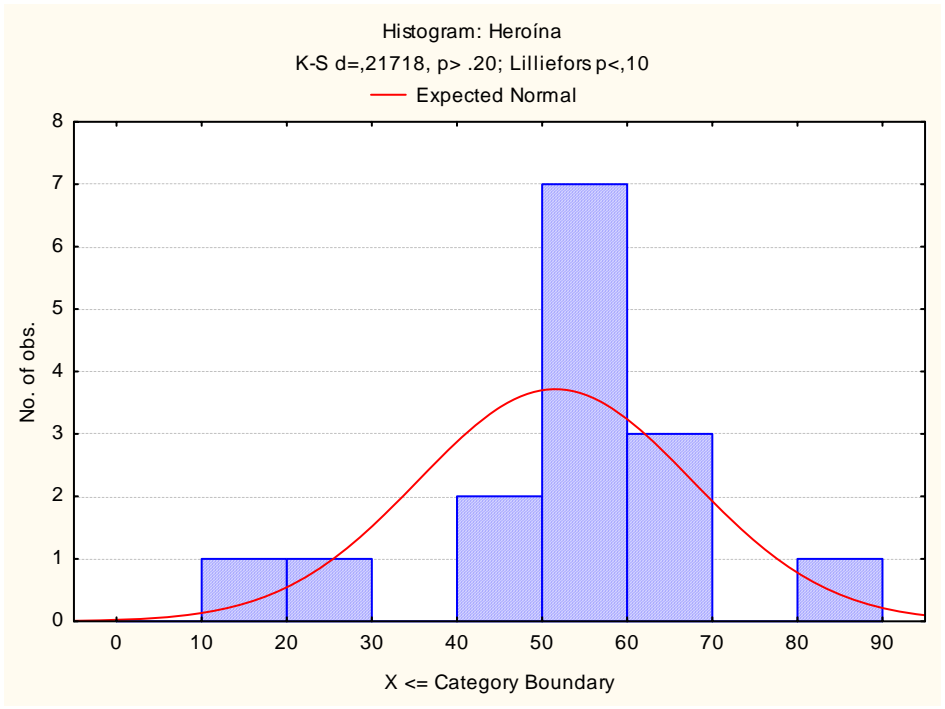
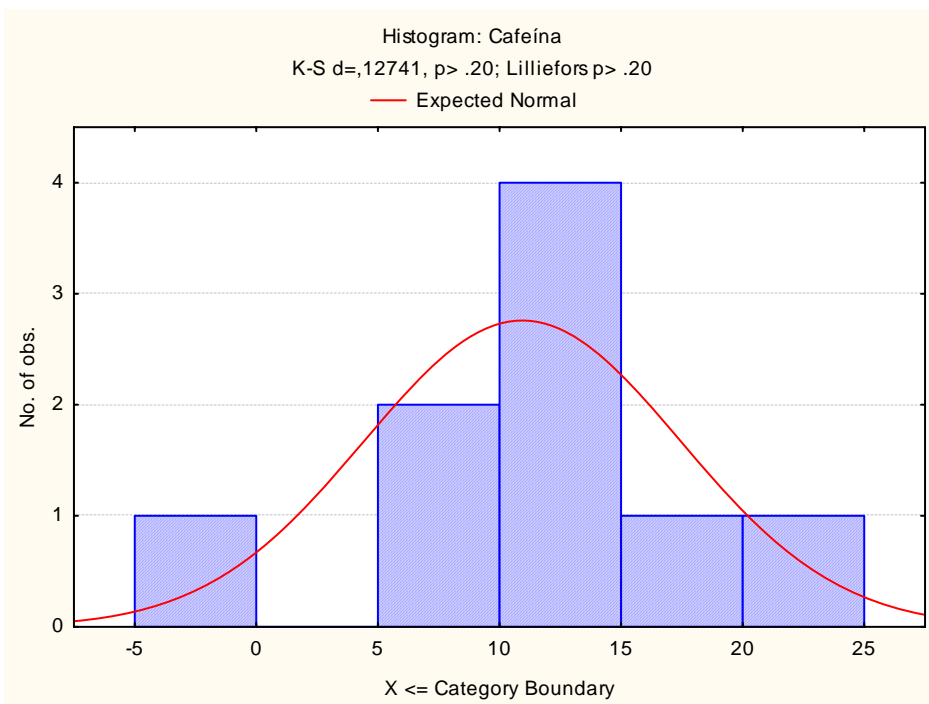
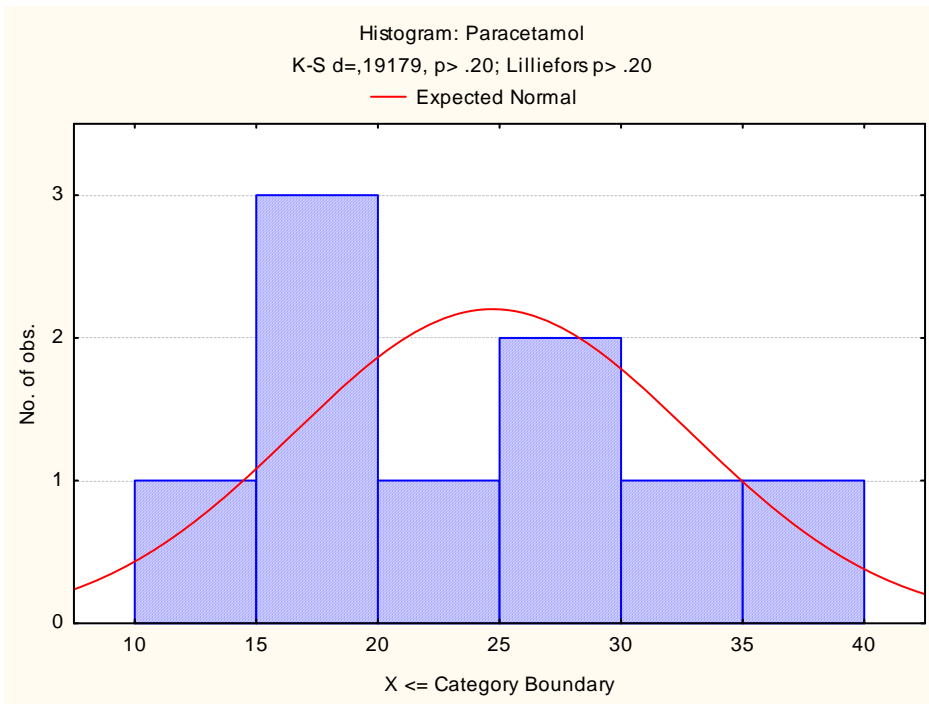
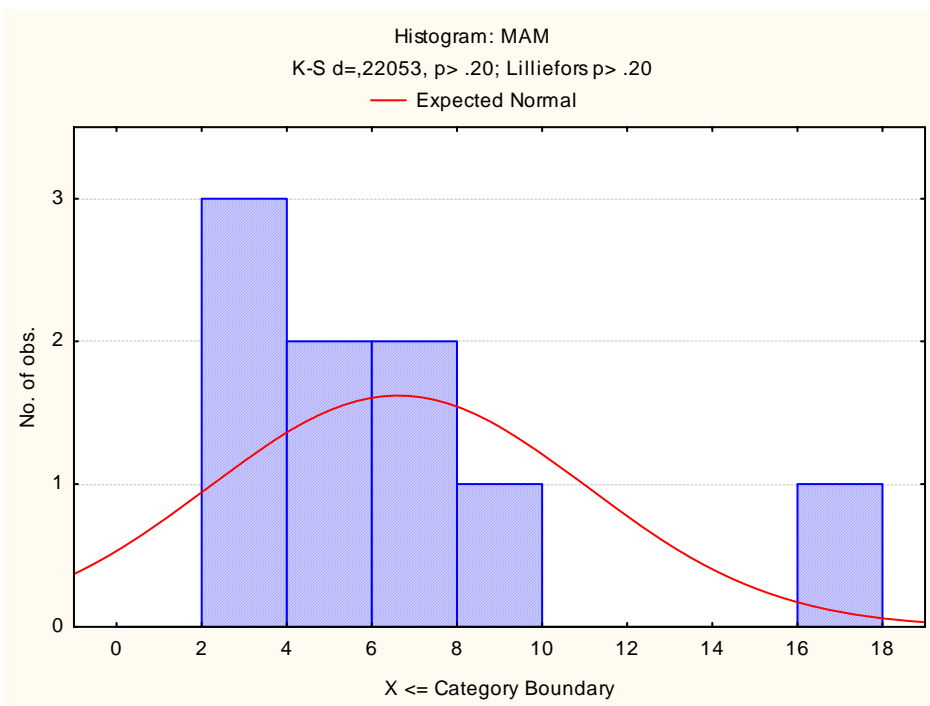
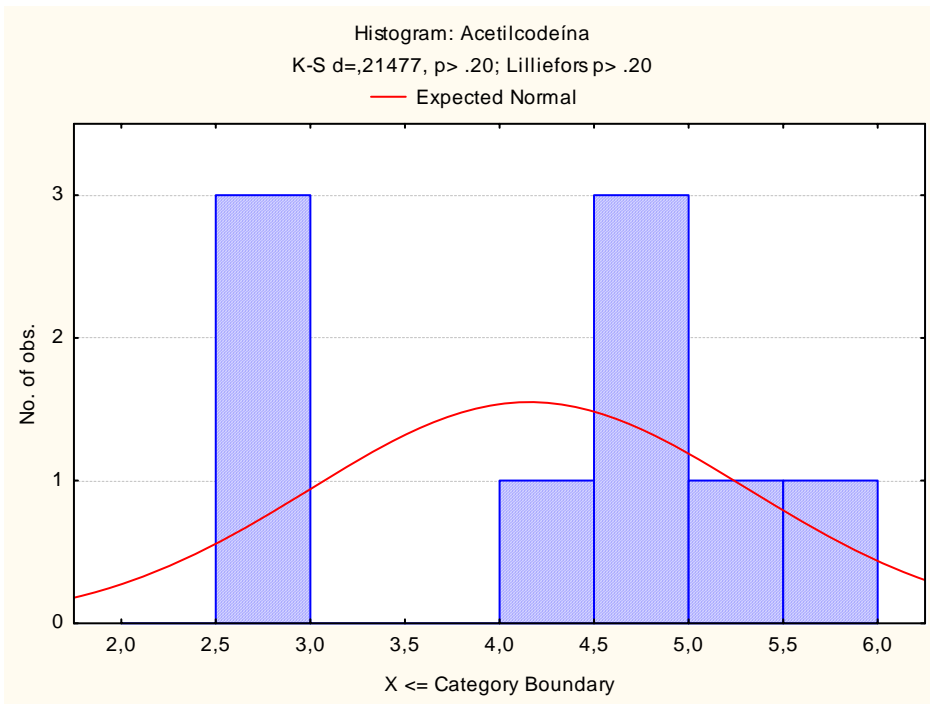


Figura 2A – Histogramas de todas as variáveis na zona de Setúbal. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras de Setúbal.





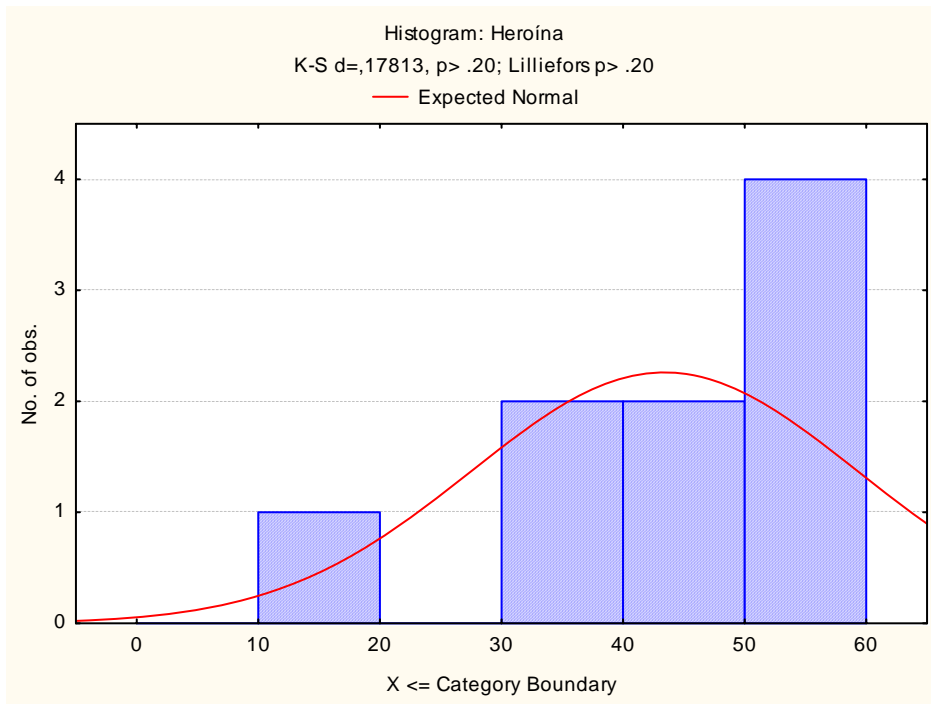
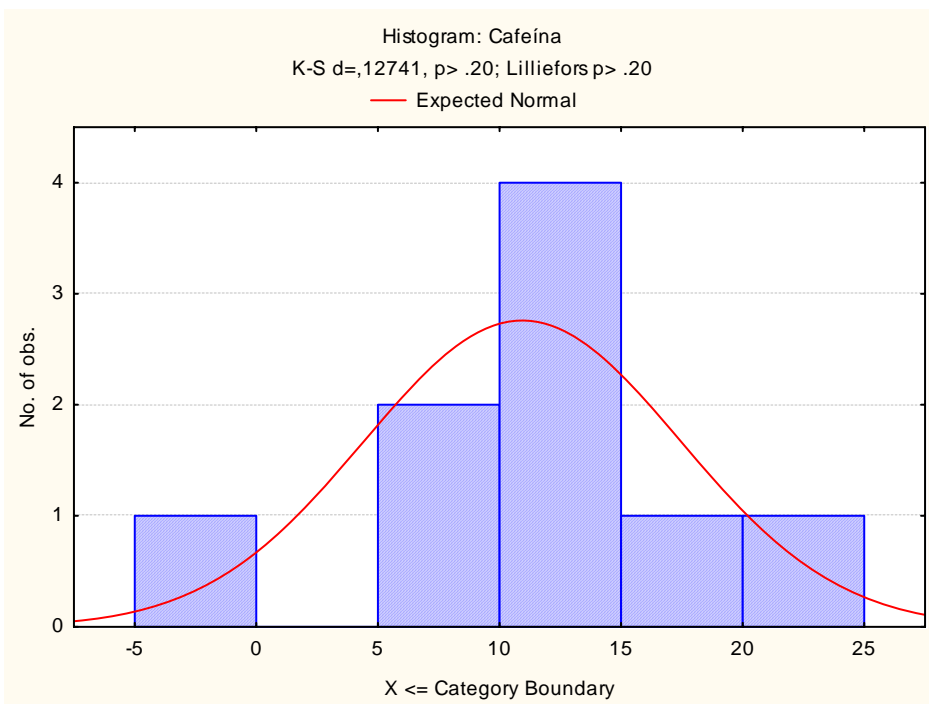
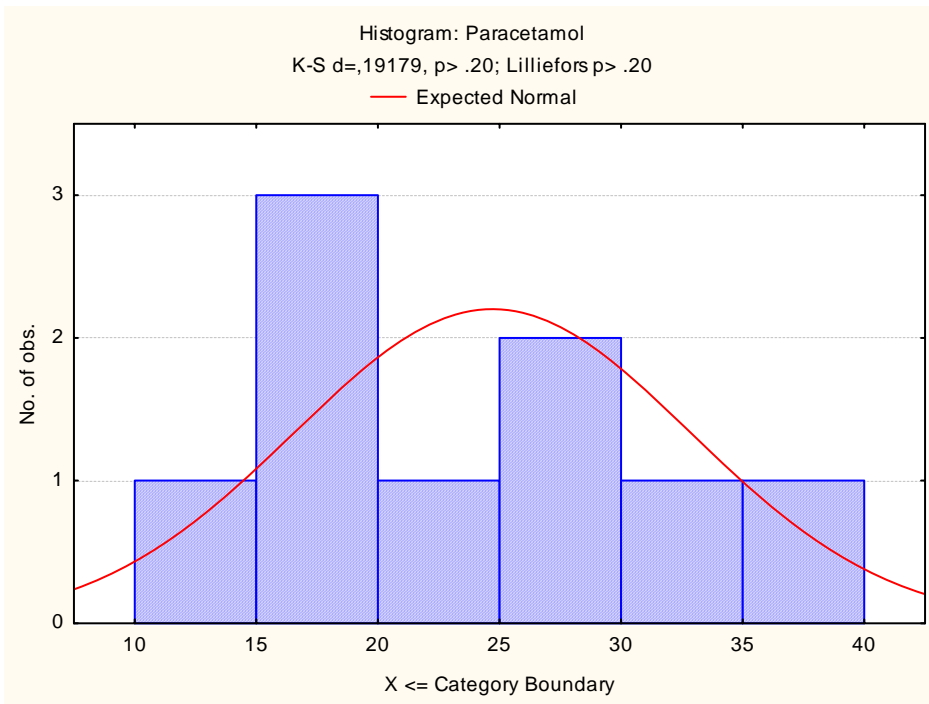
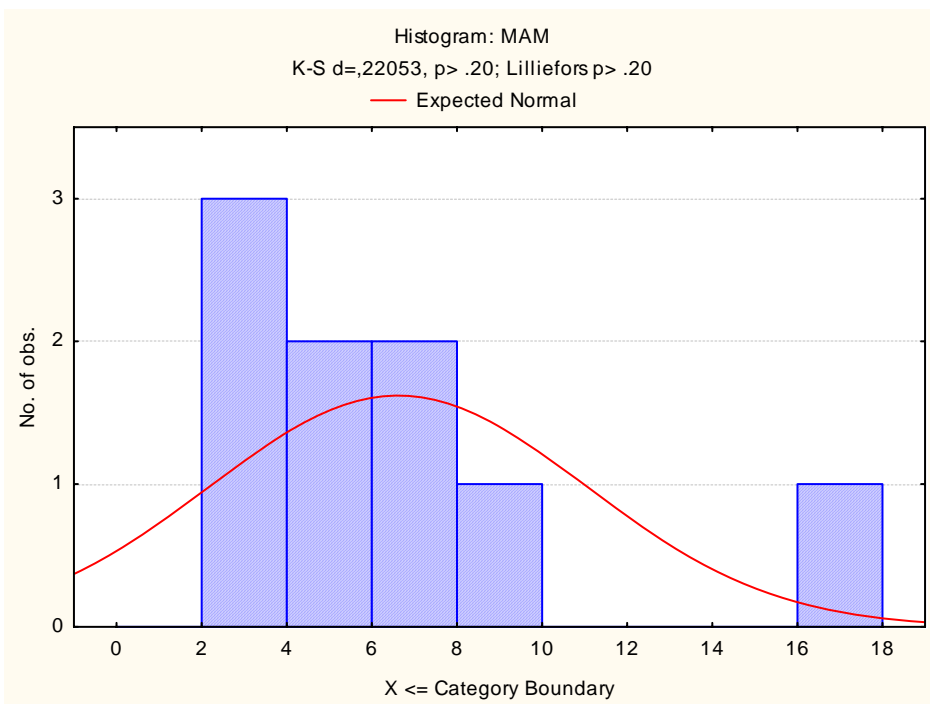
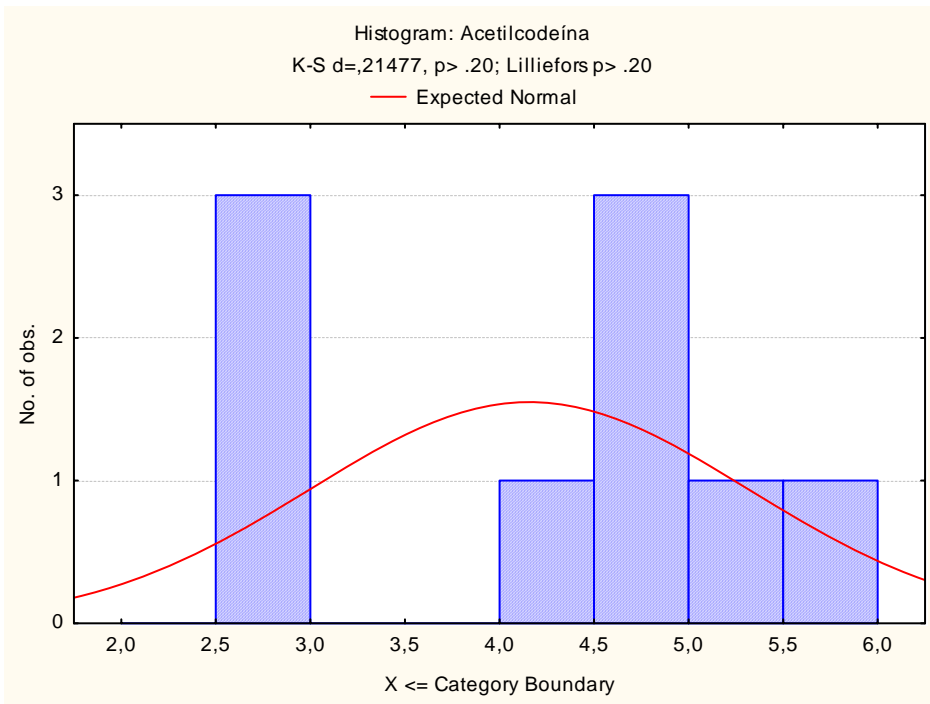


Figura 3A – Histogramas de todas as variáveis na zona do Funchal. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras de Funchal.





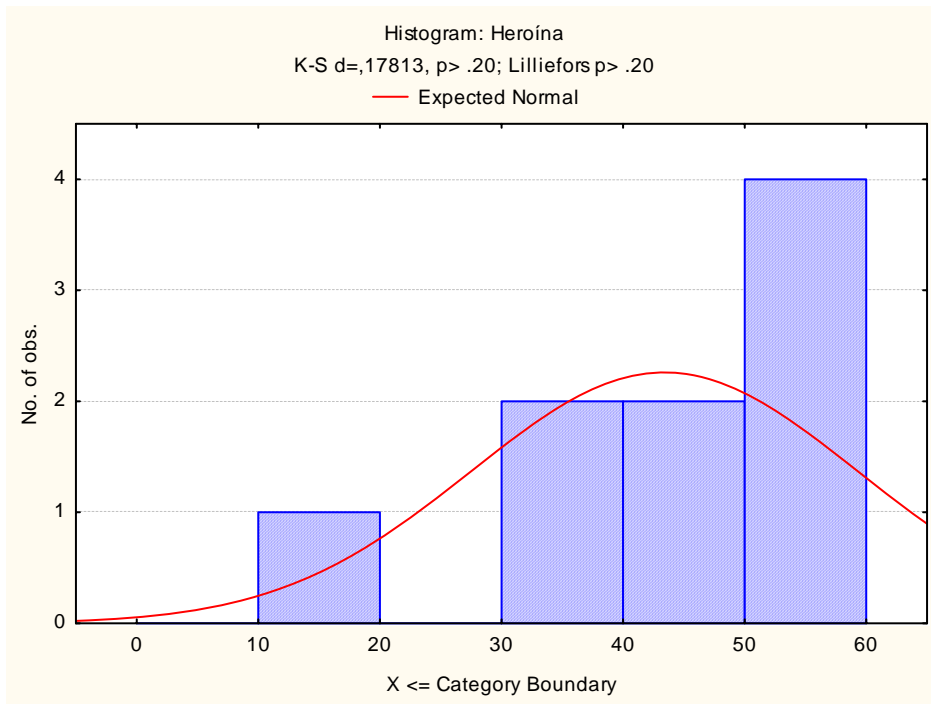
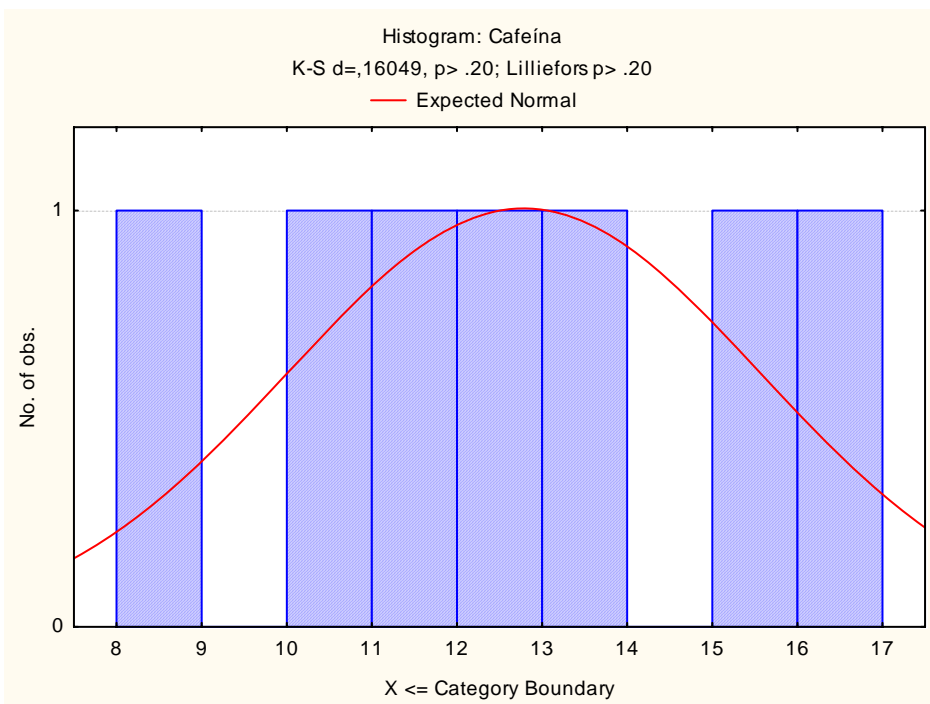
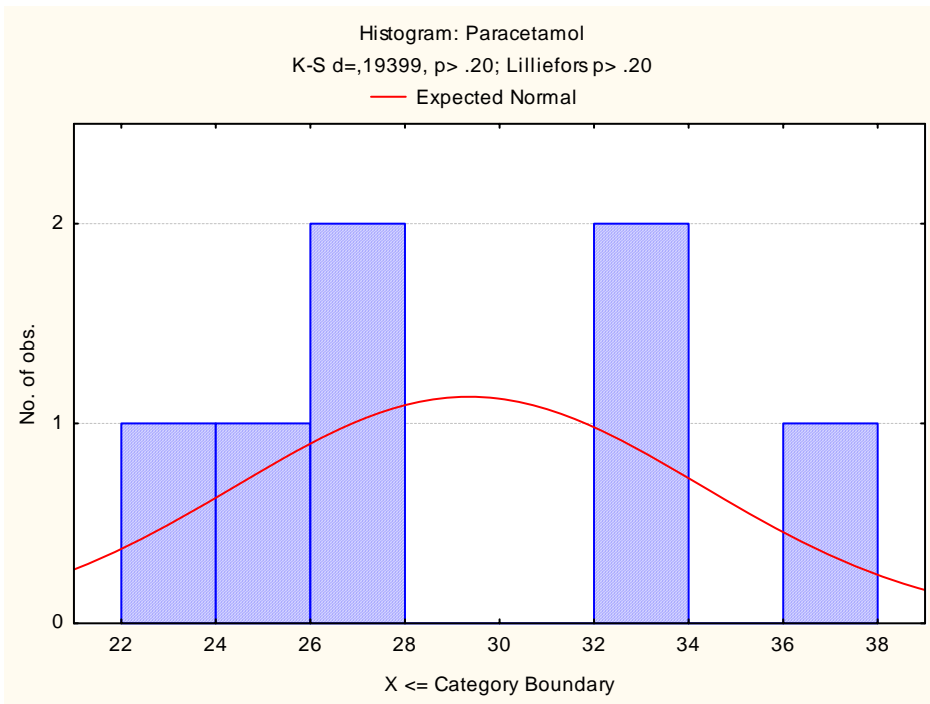
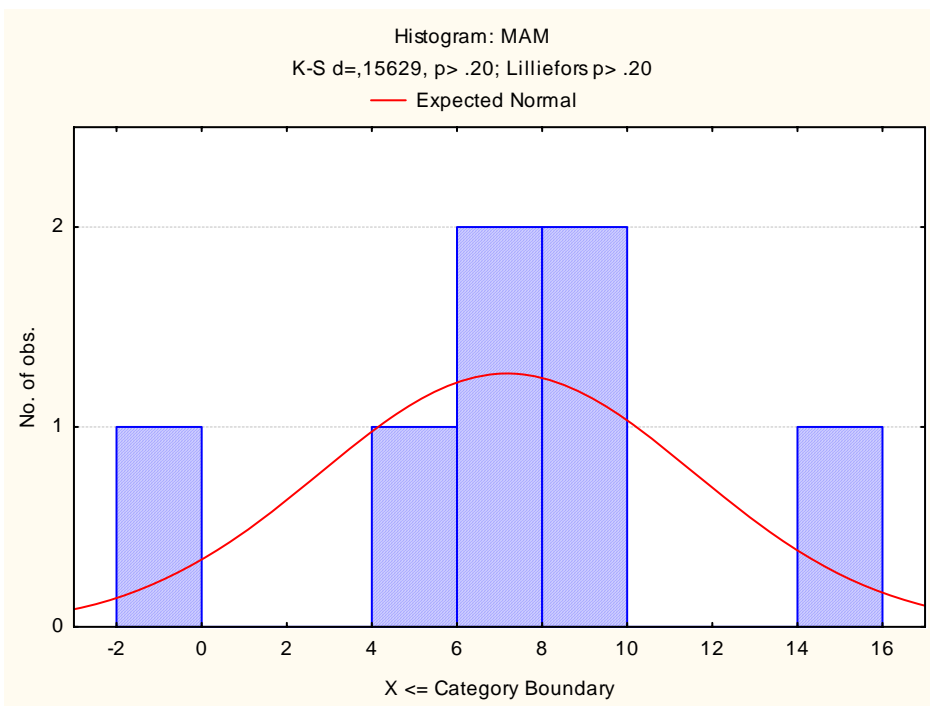
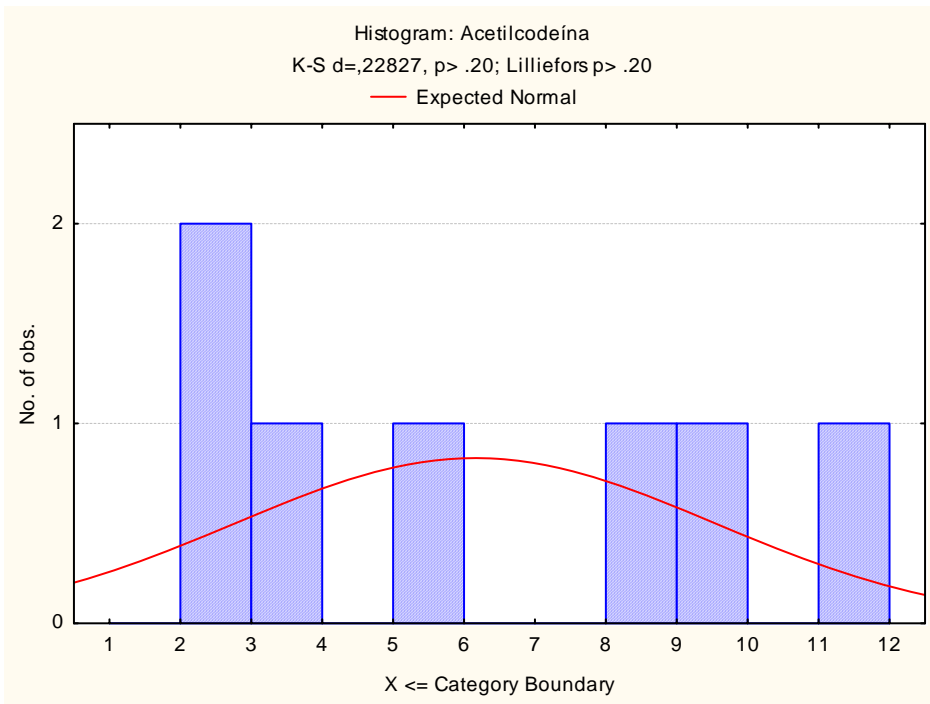


Figura 4A – Histogramas de todas as variáveis na zona do Funchal. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras do Funchal.





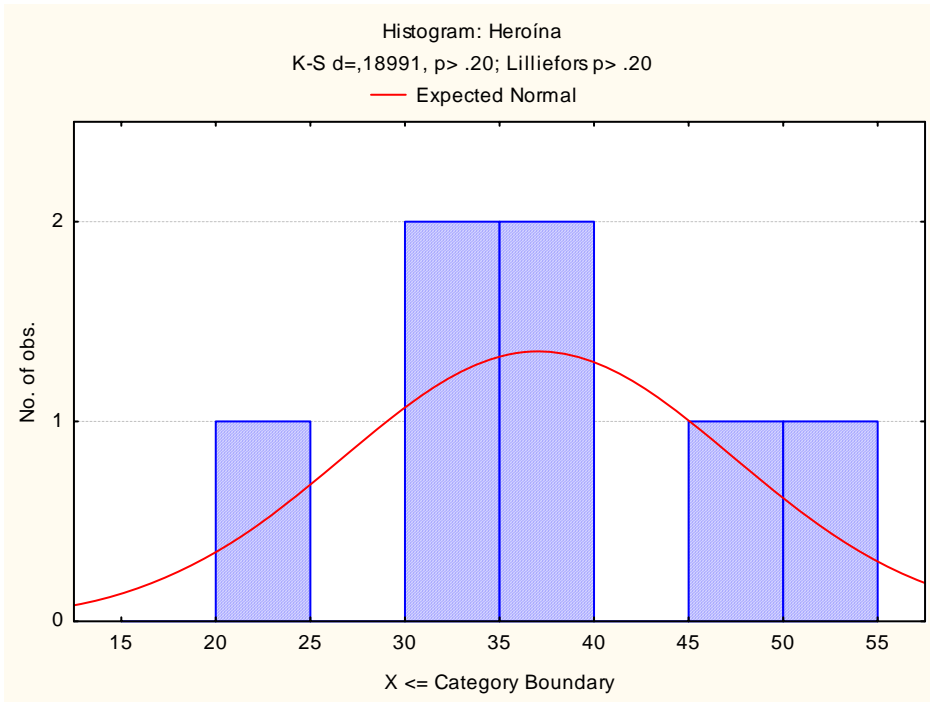
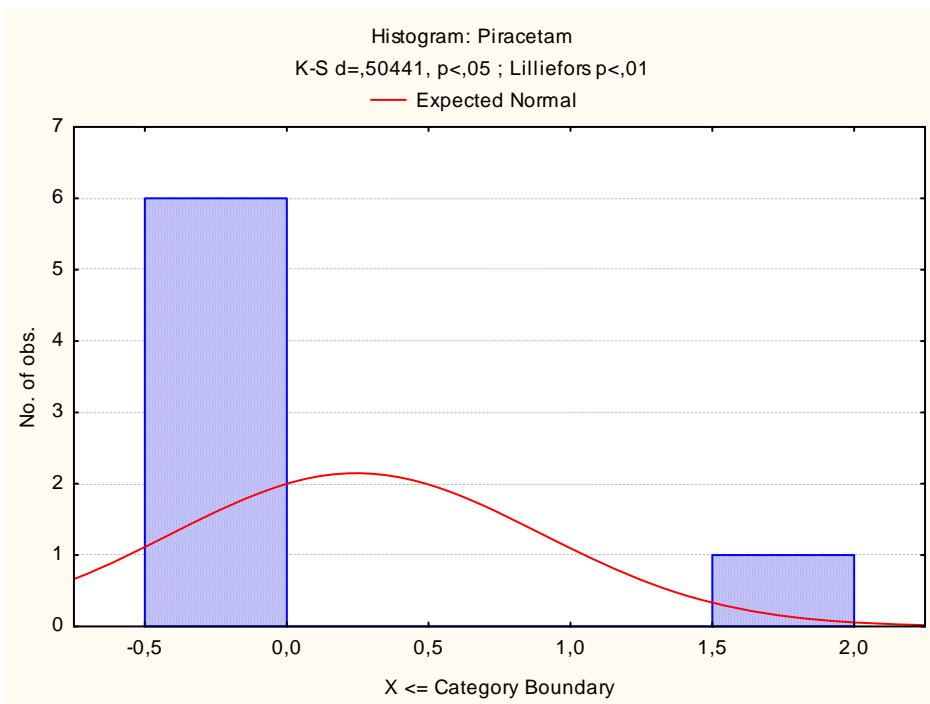
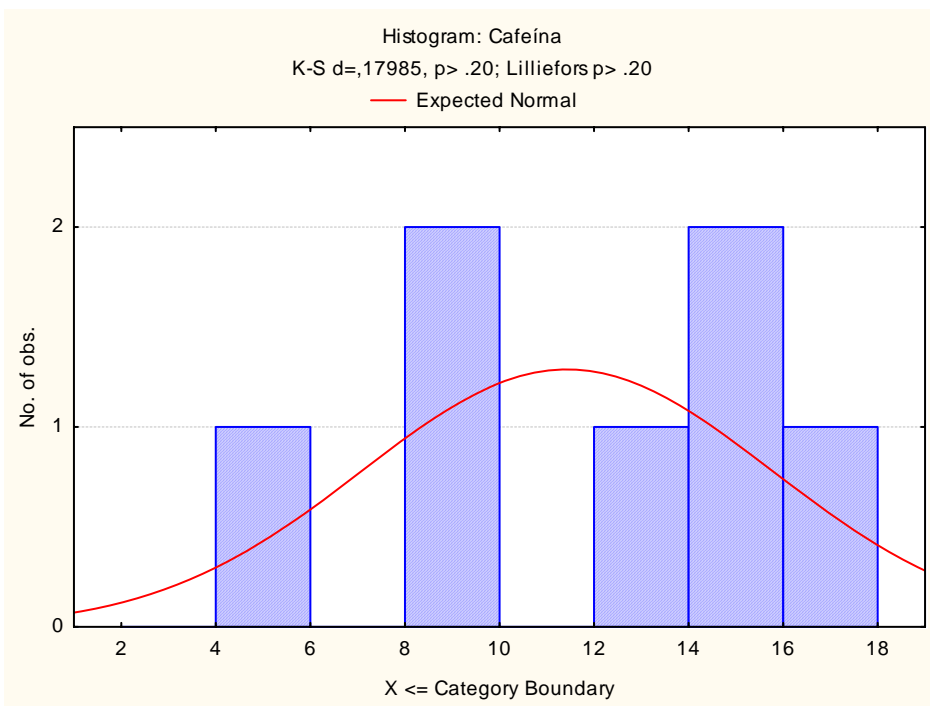
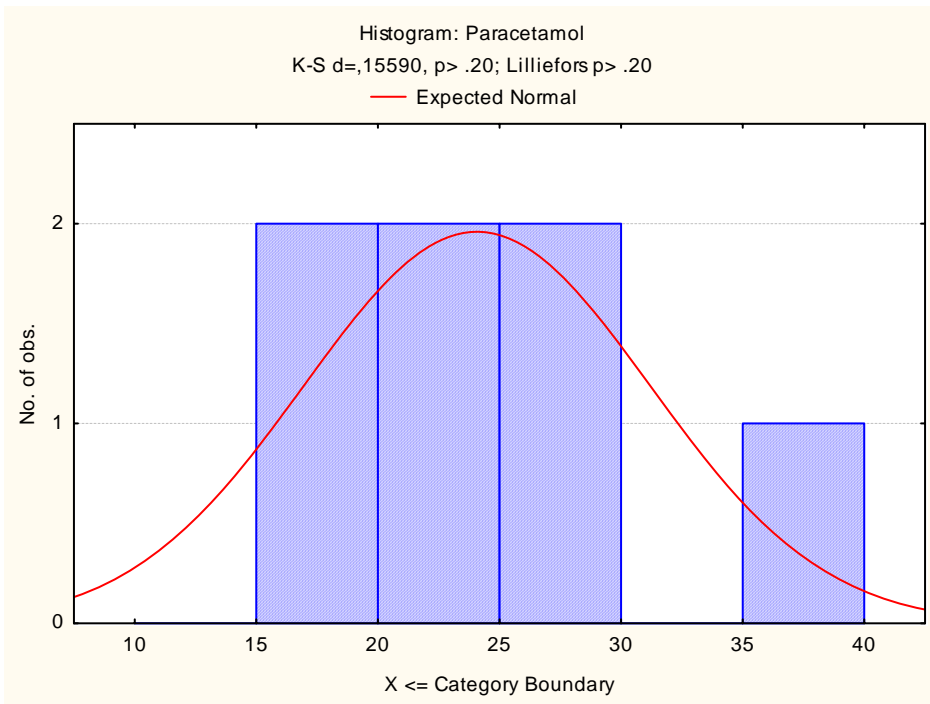
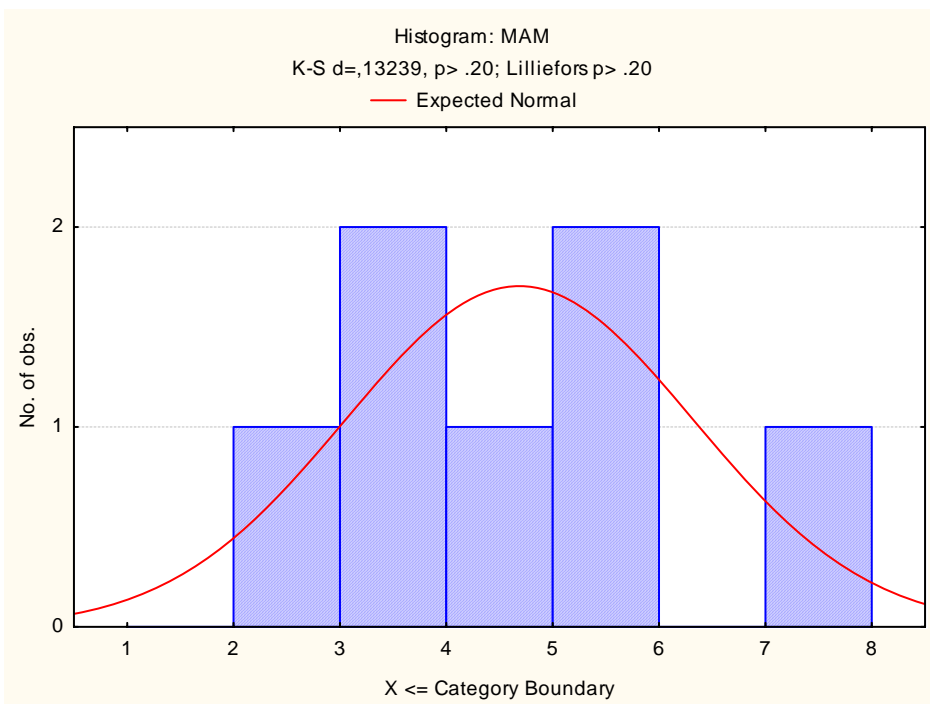
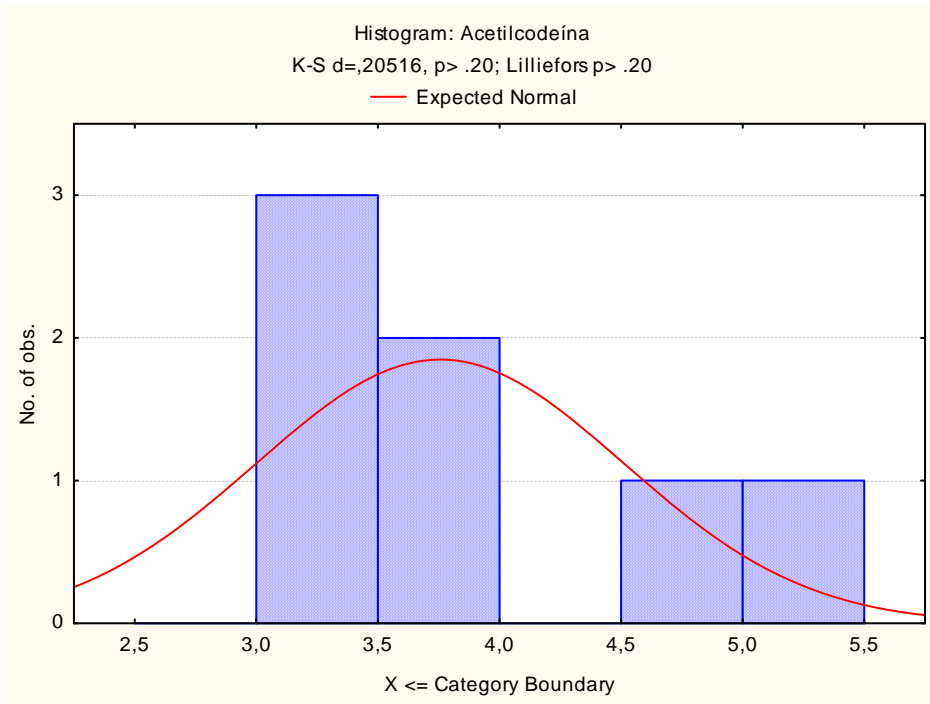


Figura 5A – Histogramas de todas as variáveis na zona de Faro. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras de Faro.







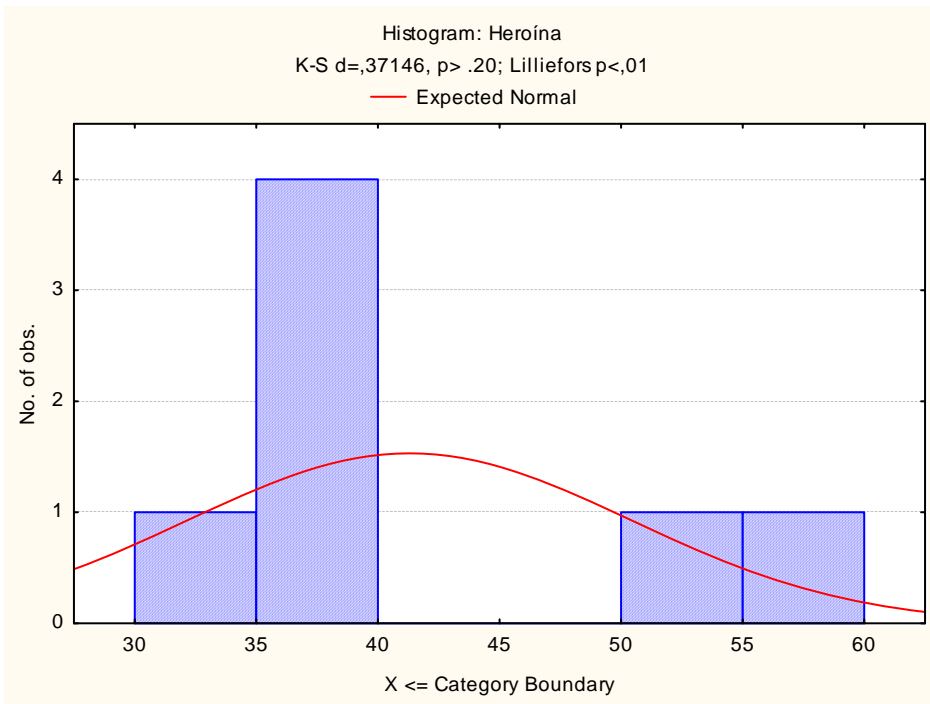
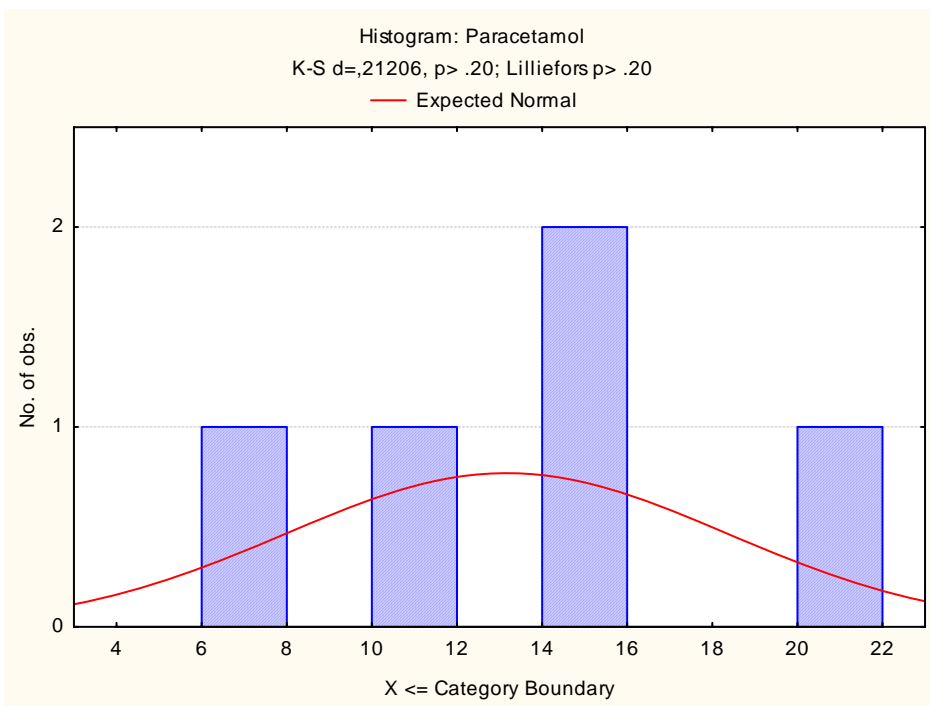
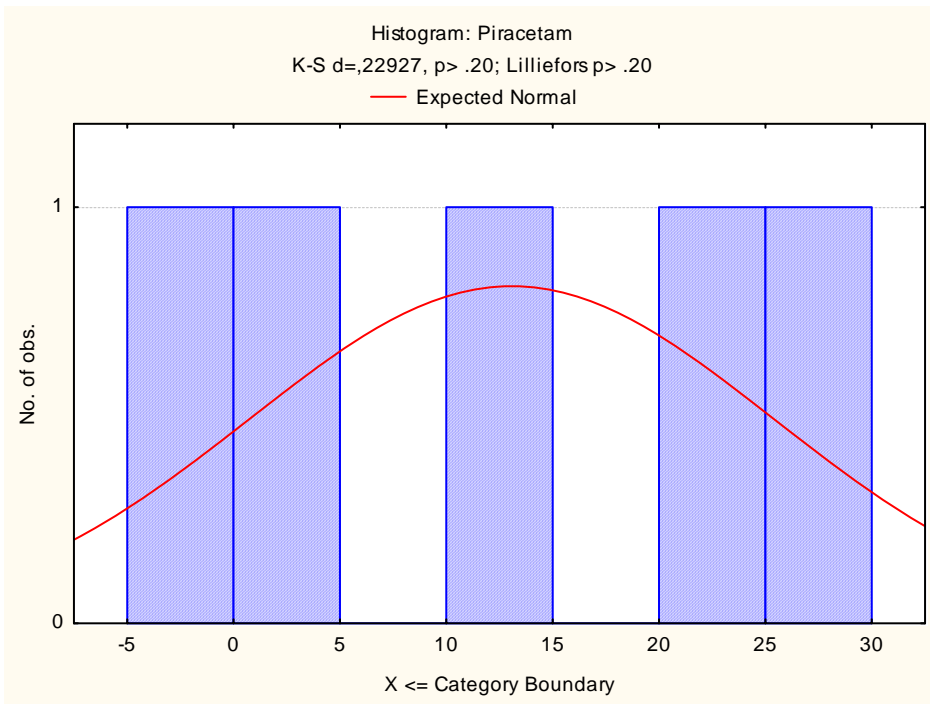
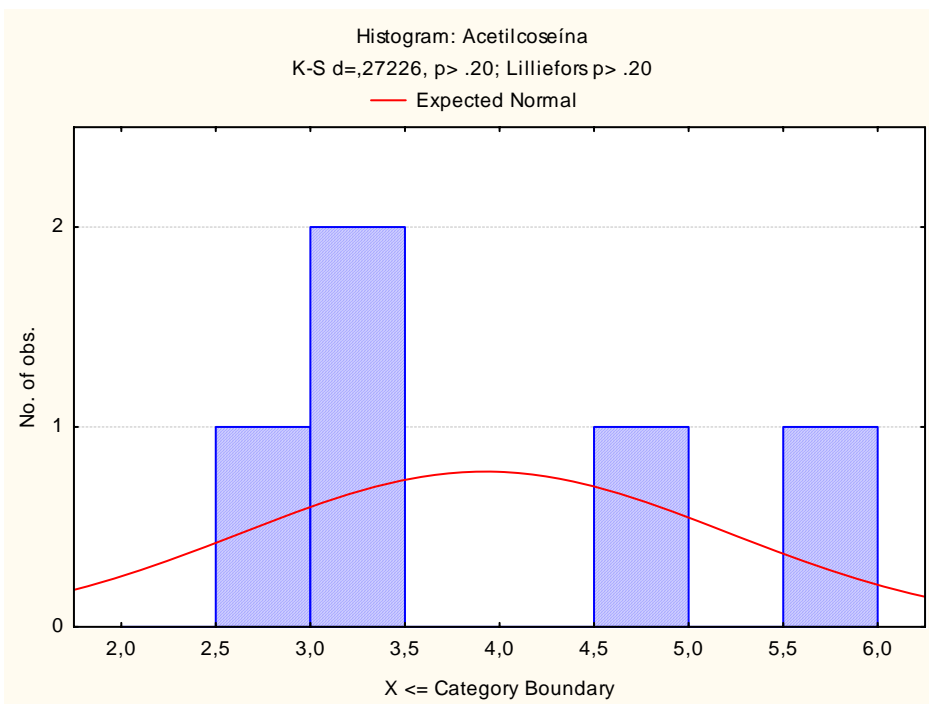
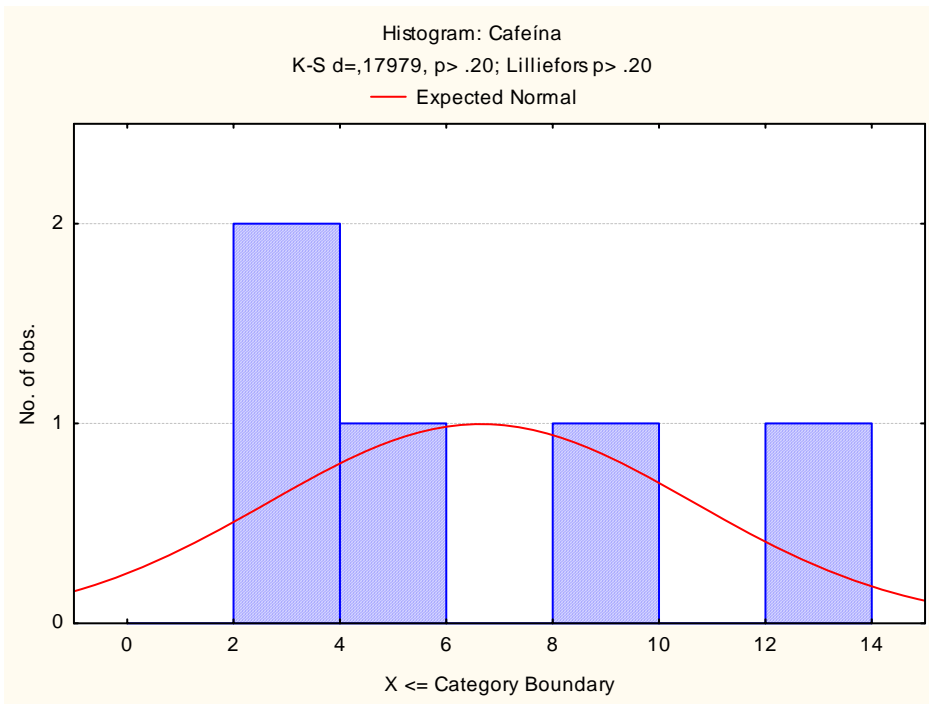


Figura 6A – Histogramas de todas as variáveis na zona de Ponta Delgada.





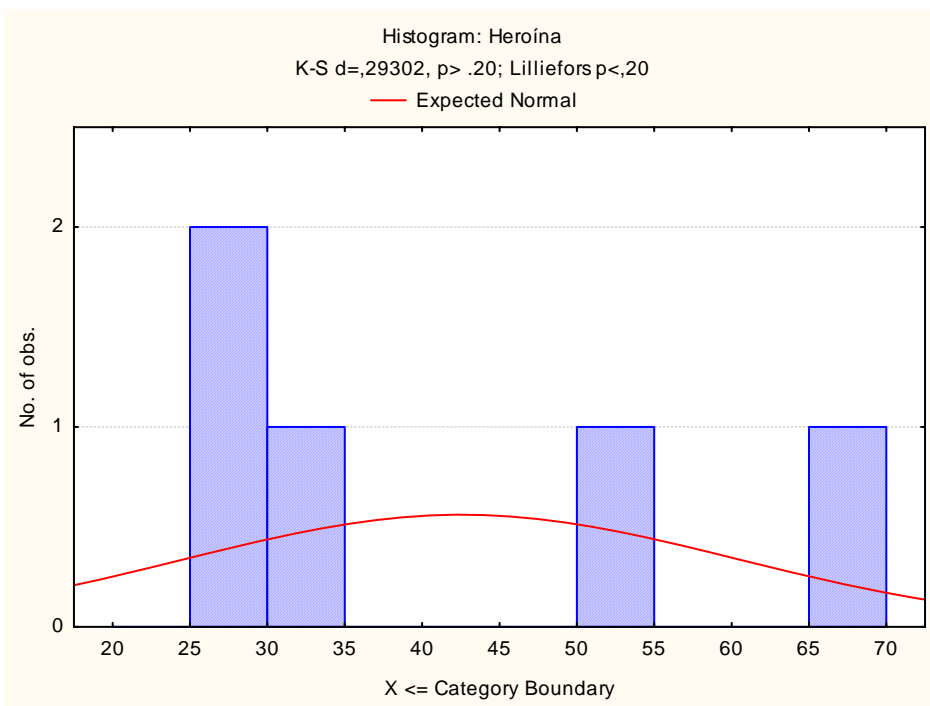
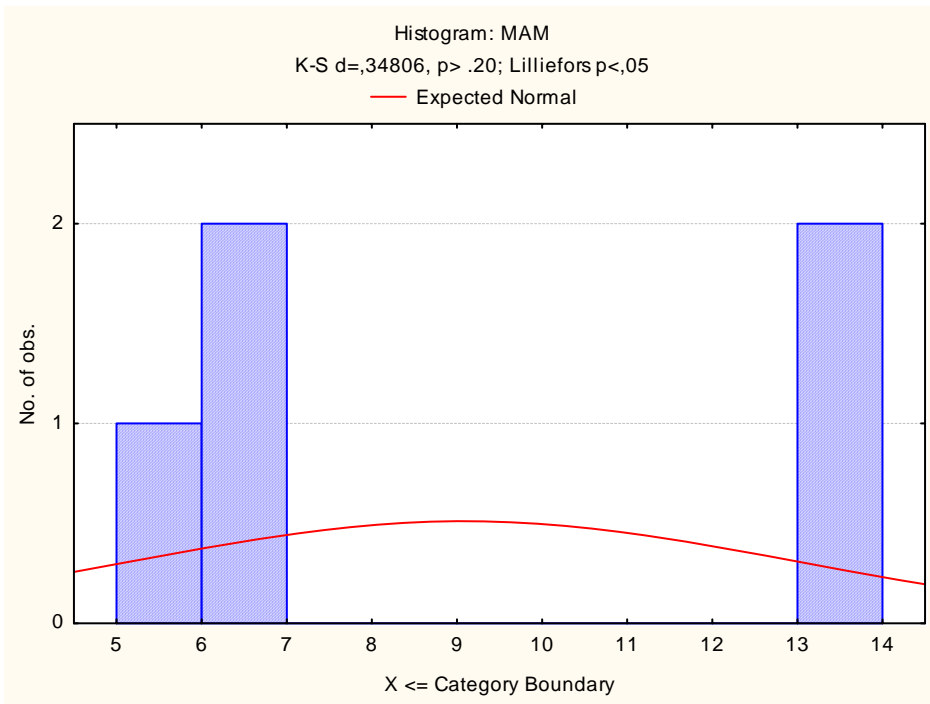
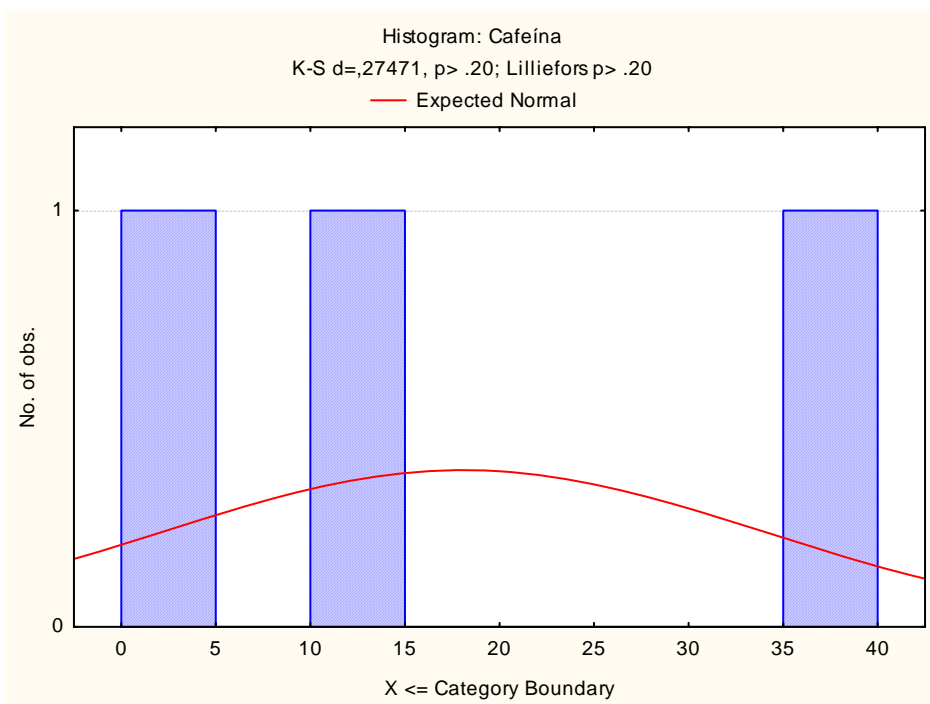
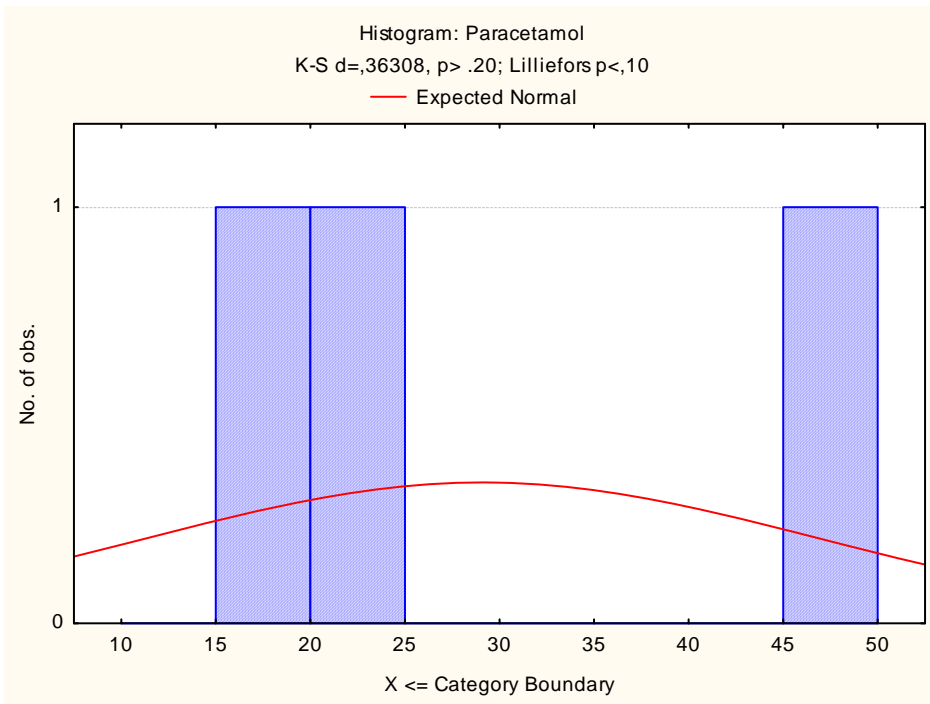
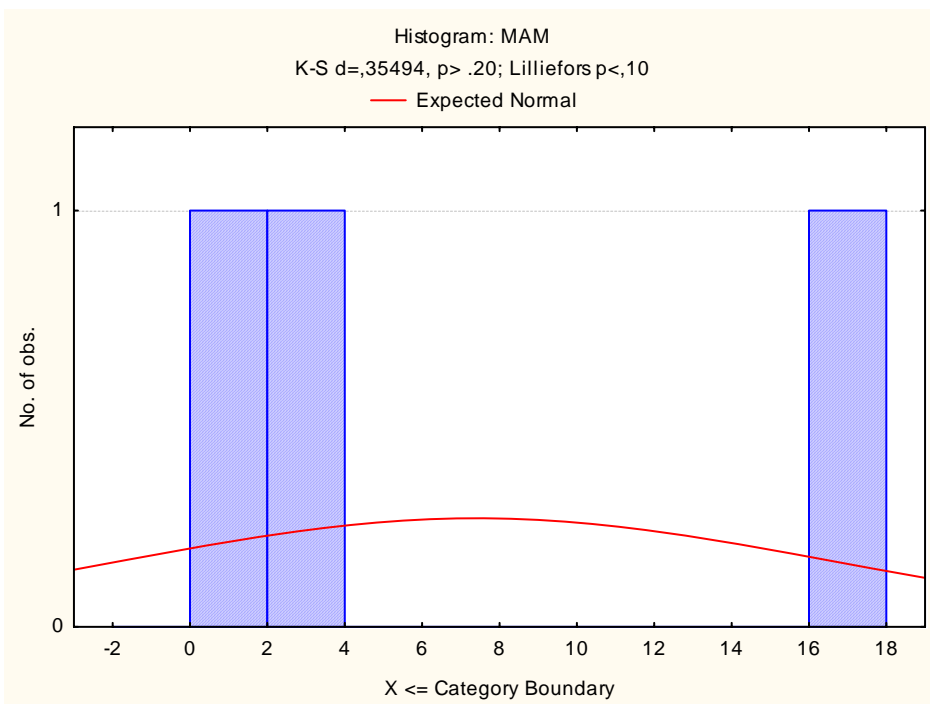
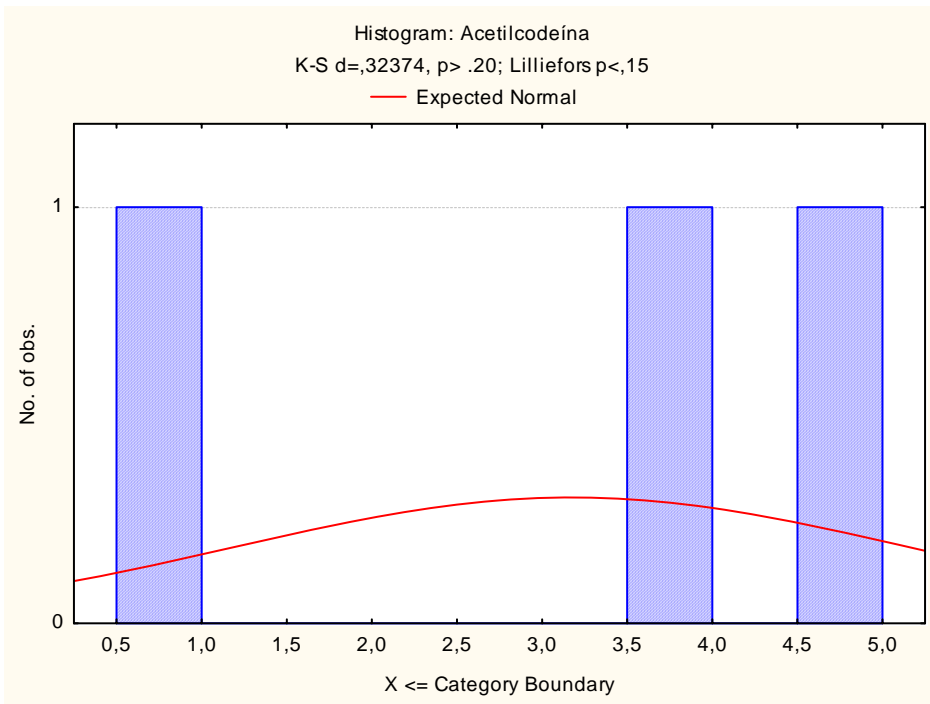


Figura 7A – Histogramas de todas as variáveis na zona de Coimbra.





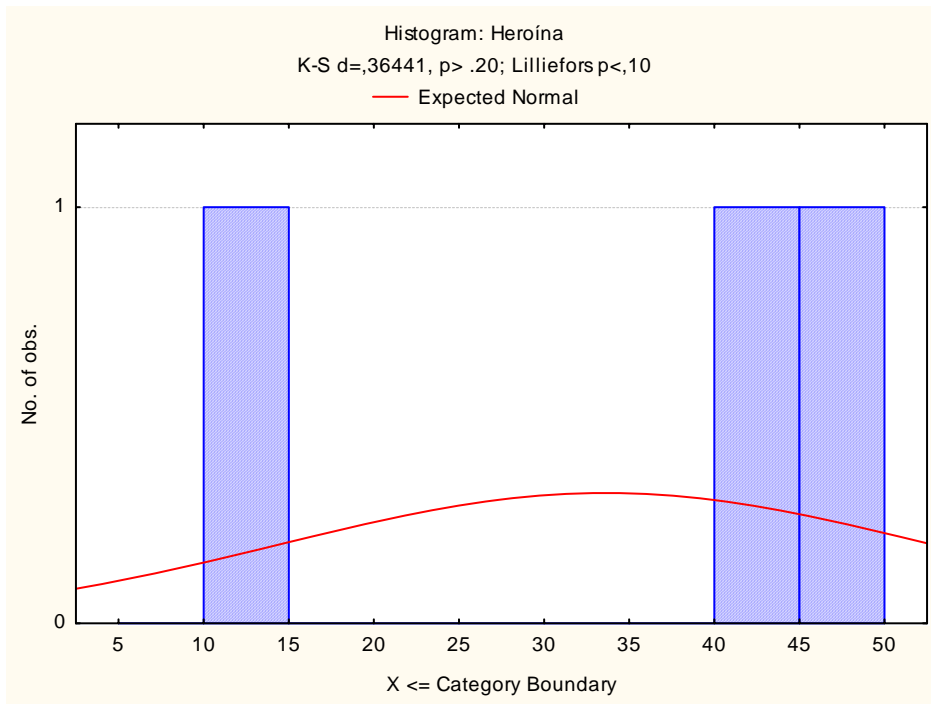
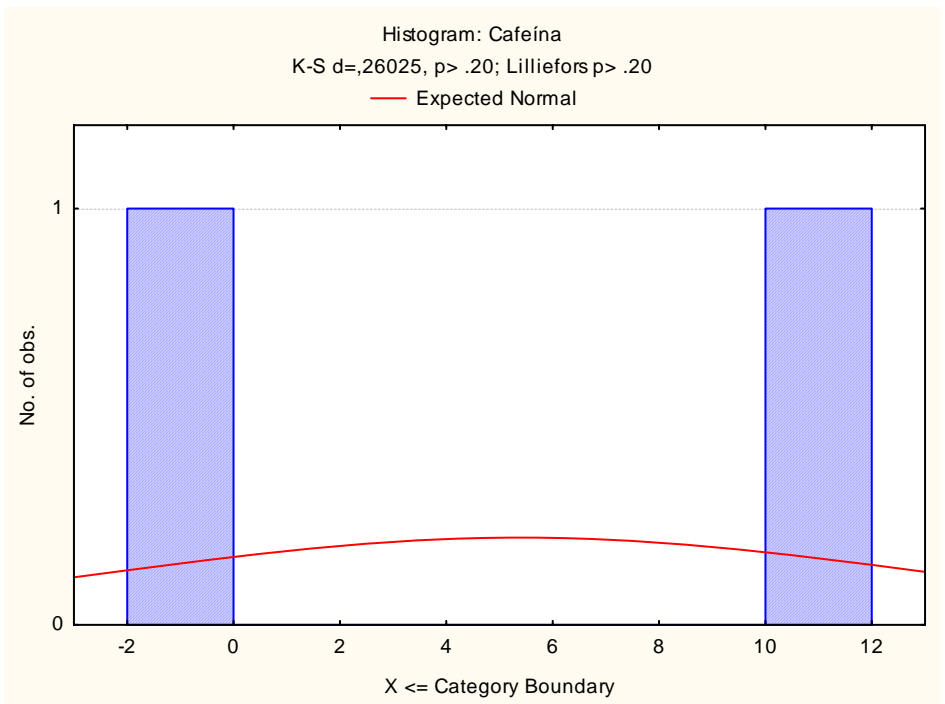
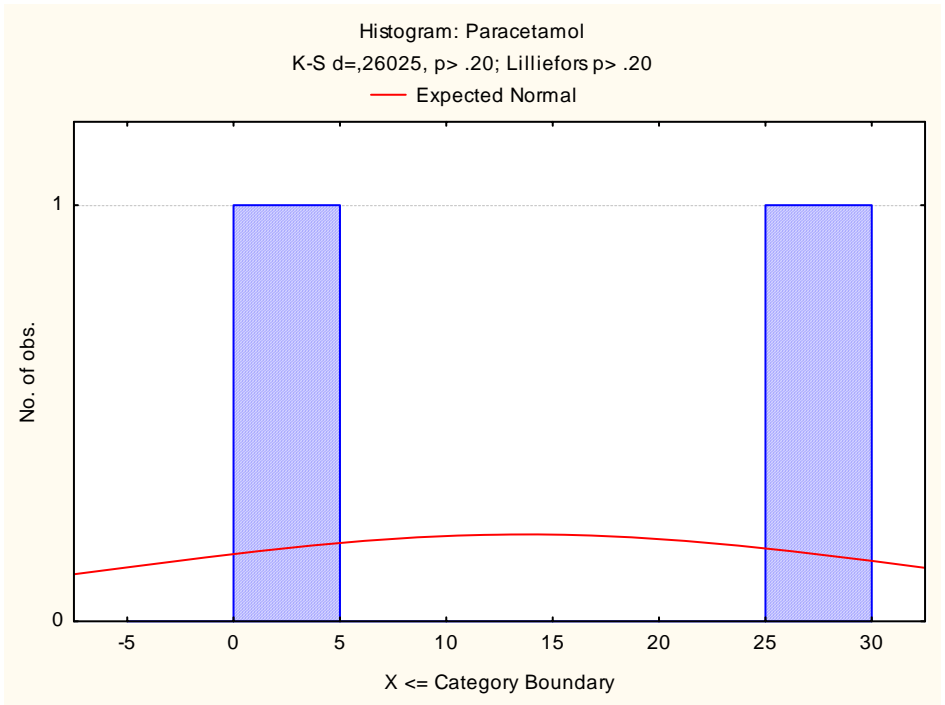
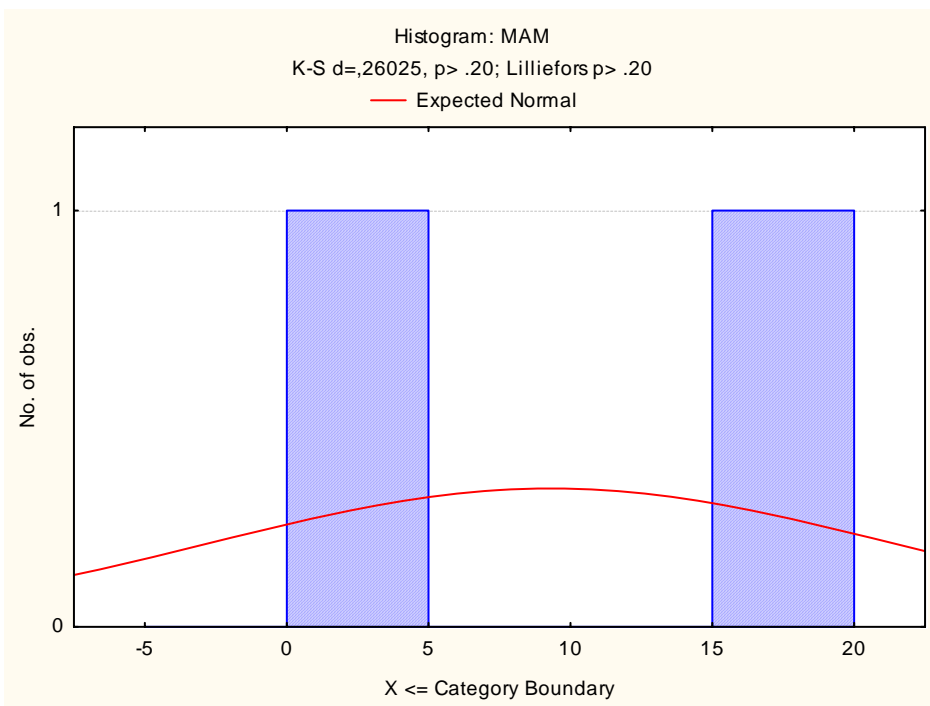
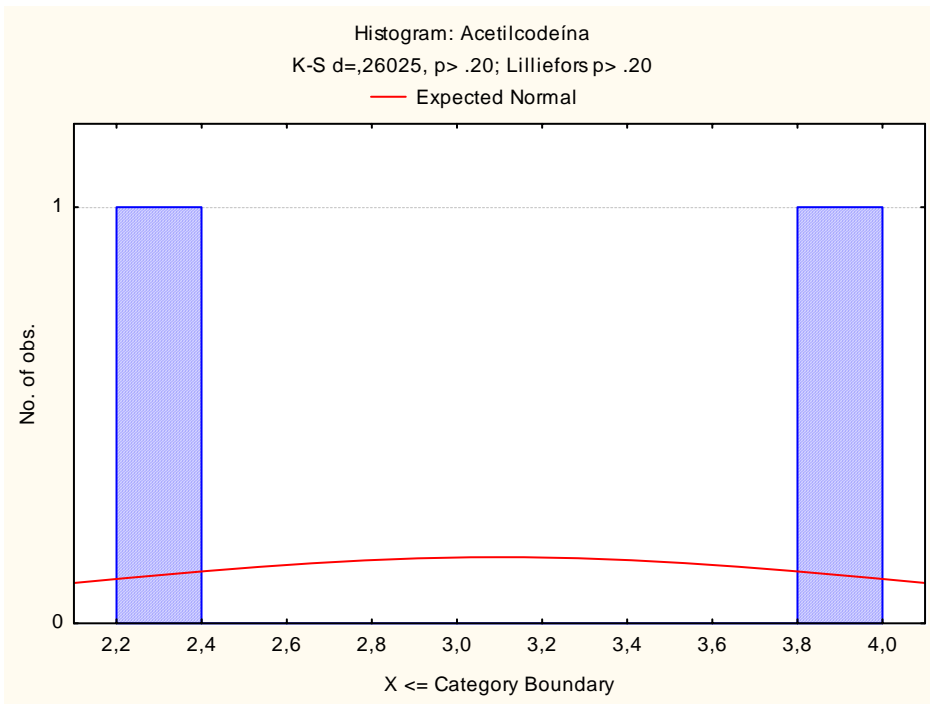


Figura 8A – Histogramas de todas as variáveis na zona de Santiago do Cacém. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras de Santiago do Cacém.





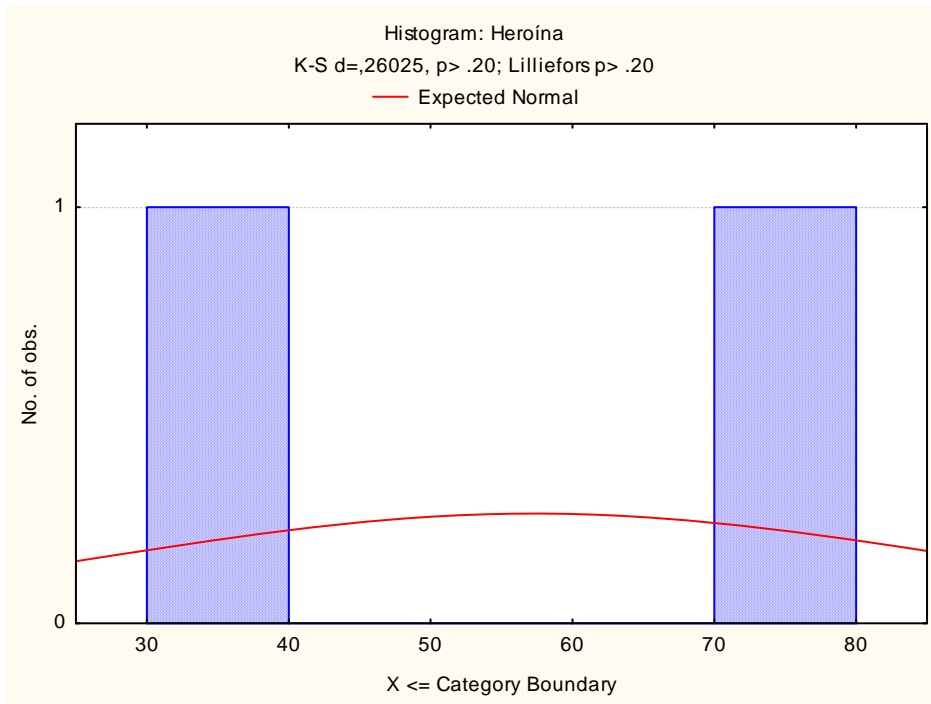
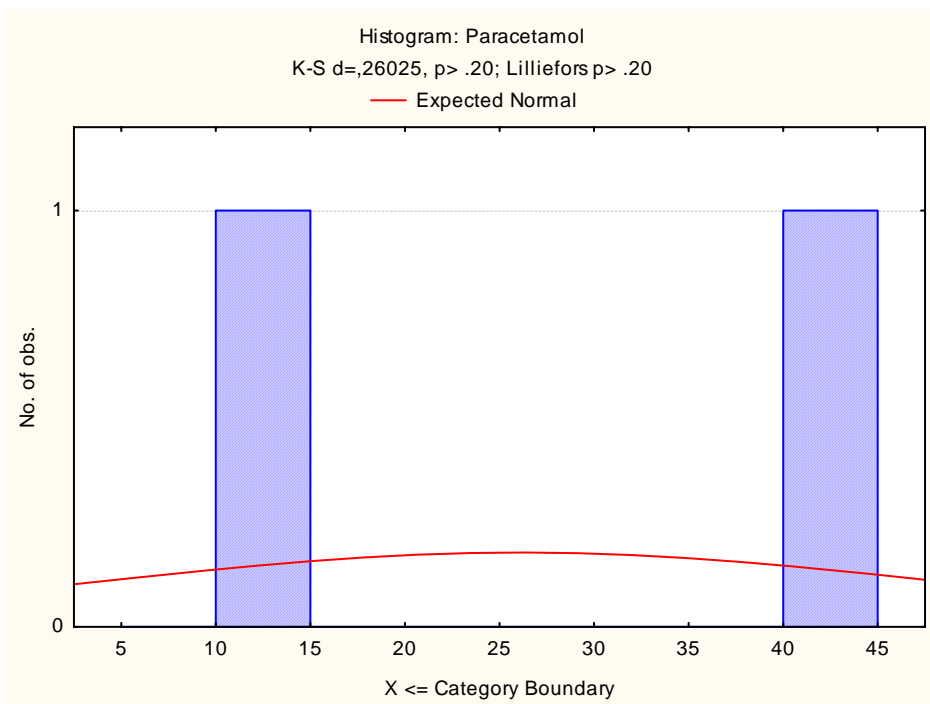
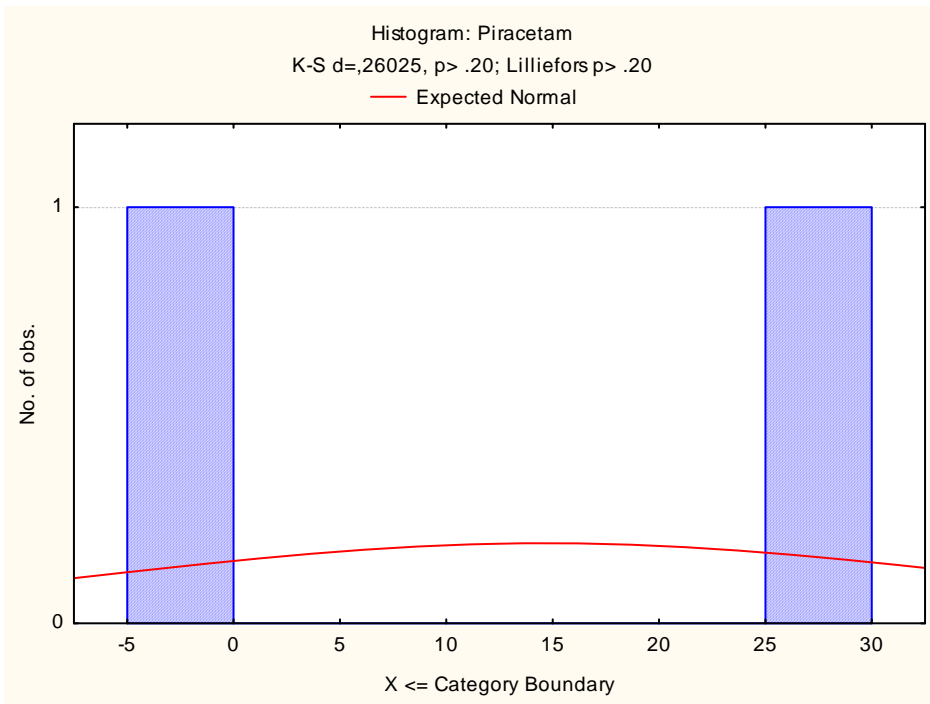
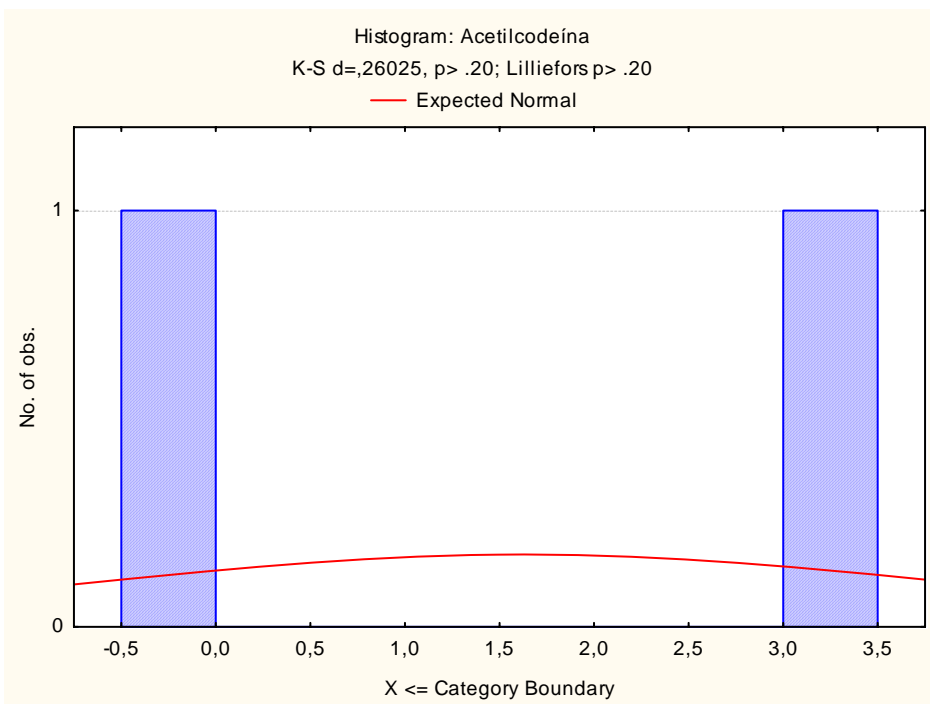
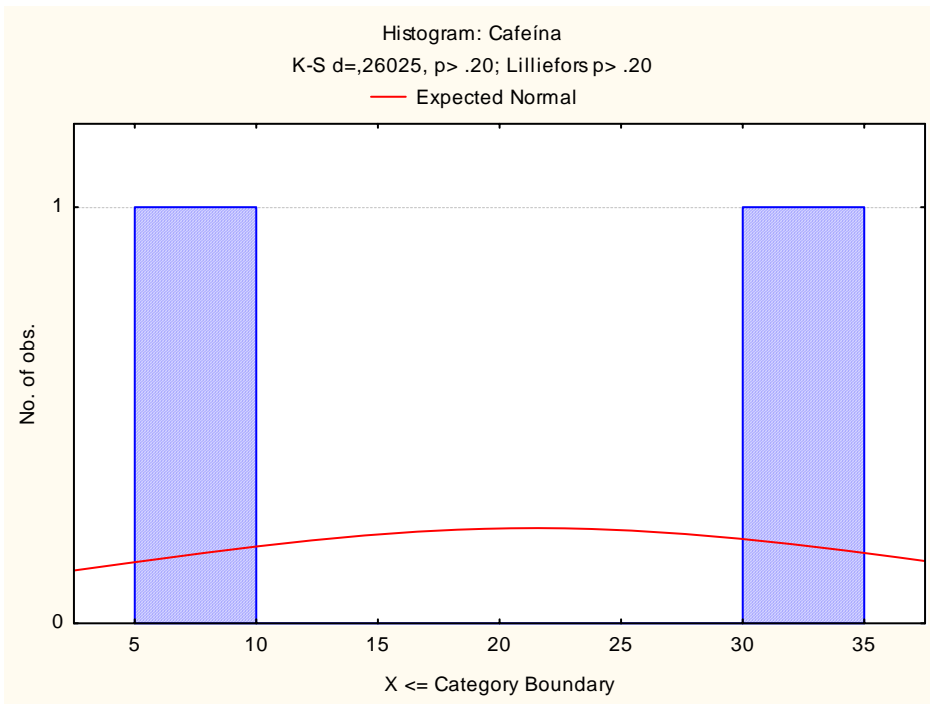


Figura 9A – Histogramas de todas as variáveis na zona de Leiria. Nesta zona não foi analisado o Piracetam pois não está presente em nenhuma das amostras de Leiria.





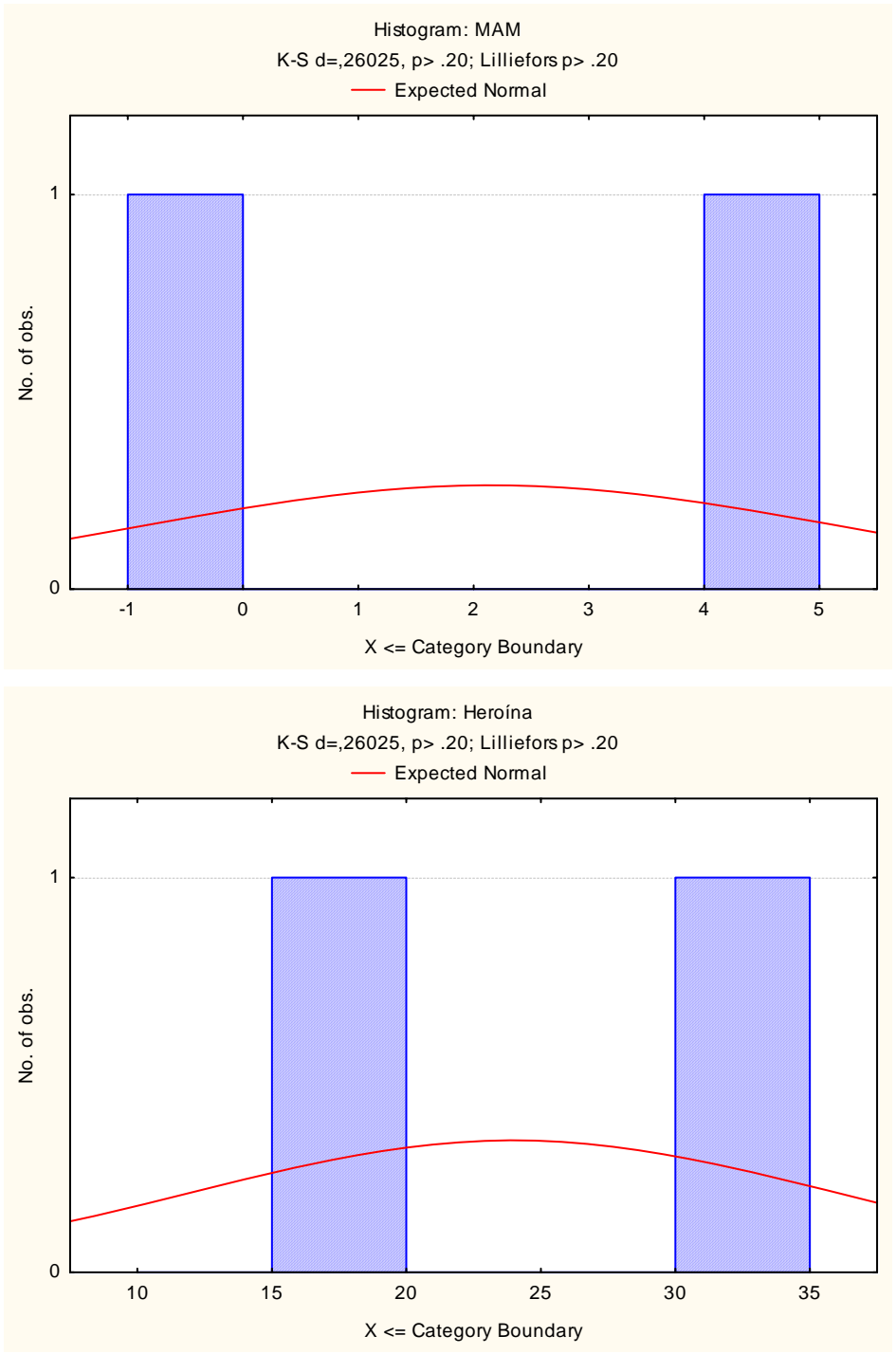
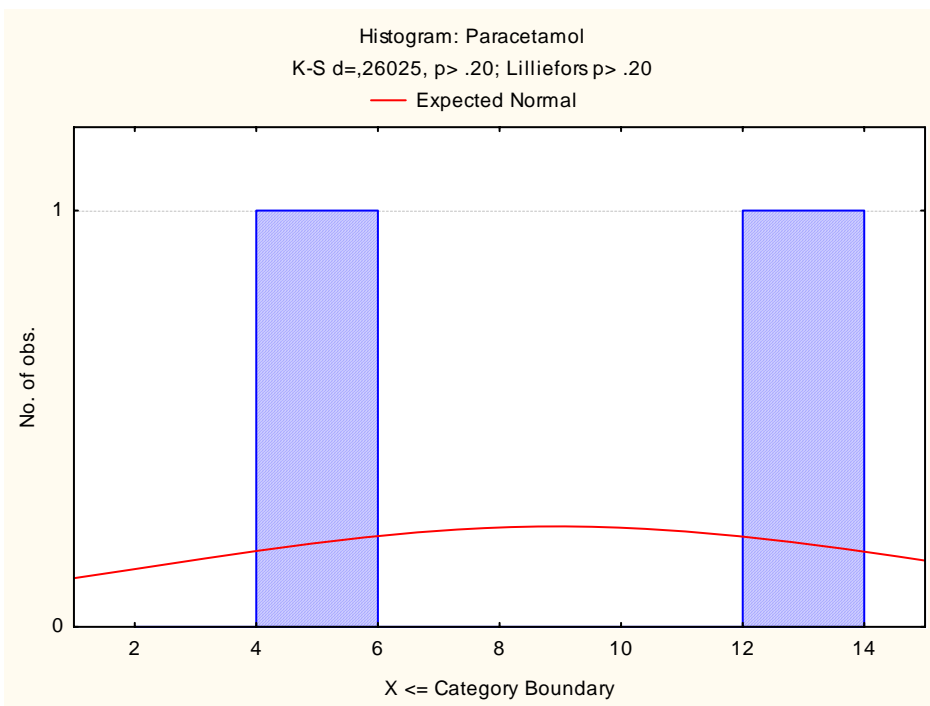
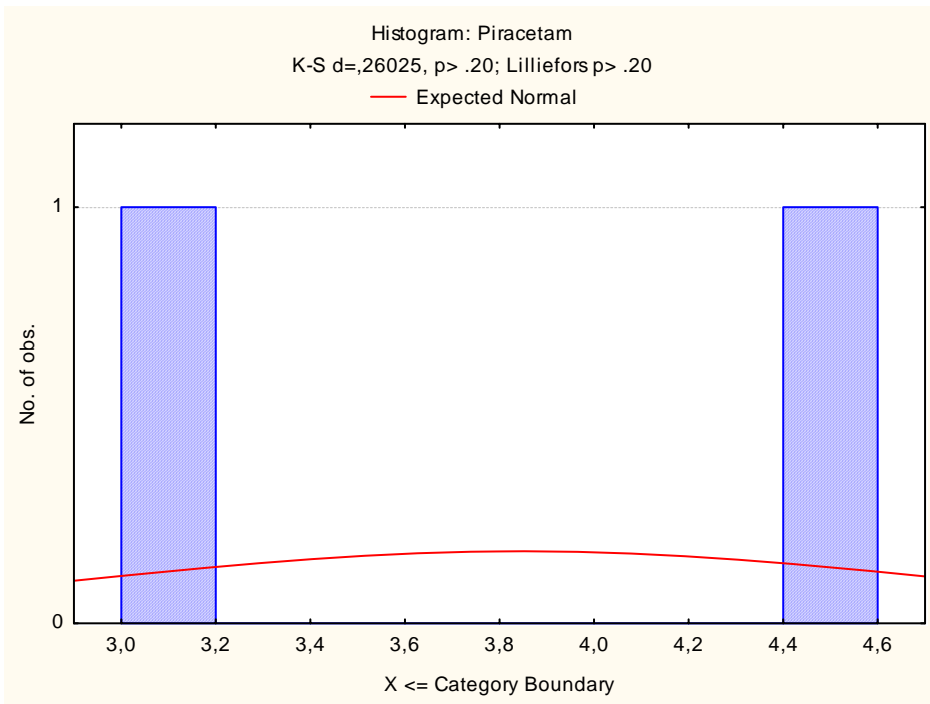
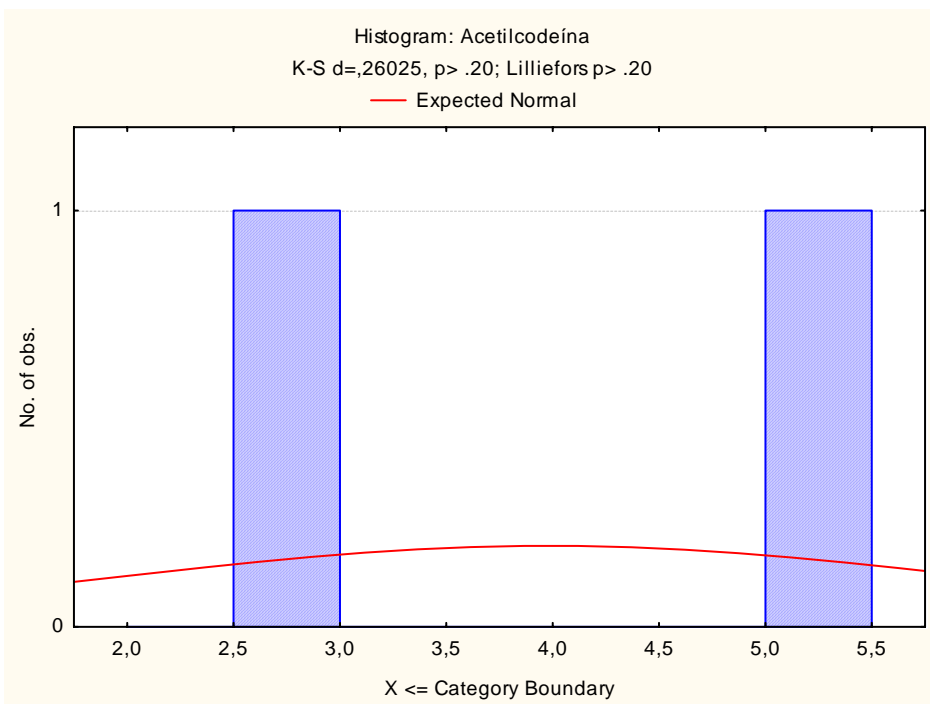
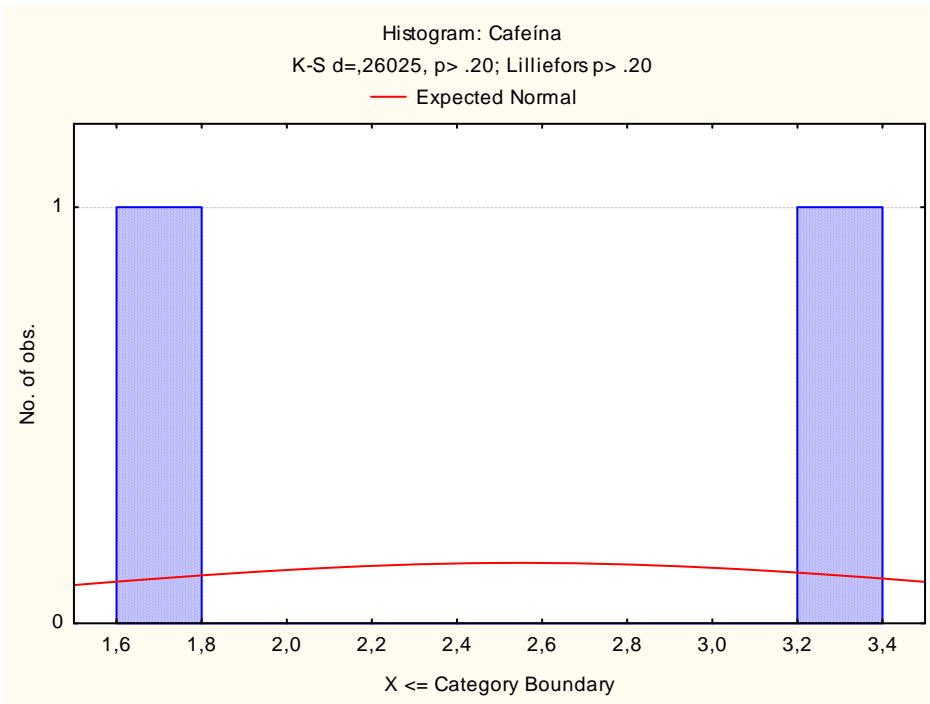


Figura 10A – Histogramas de todas as variáveis na zona de Beja.





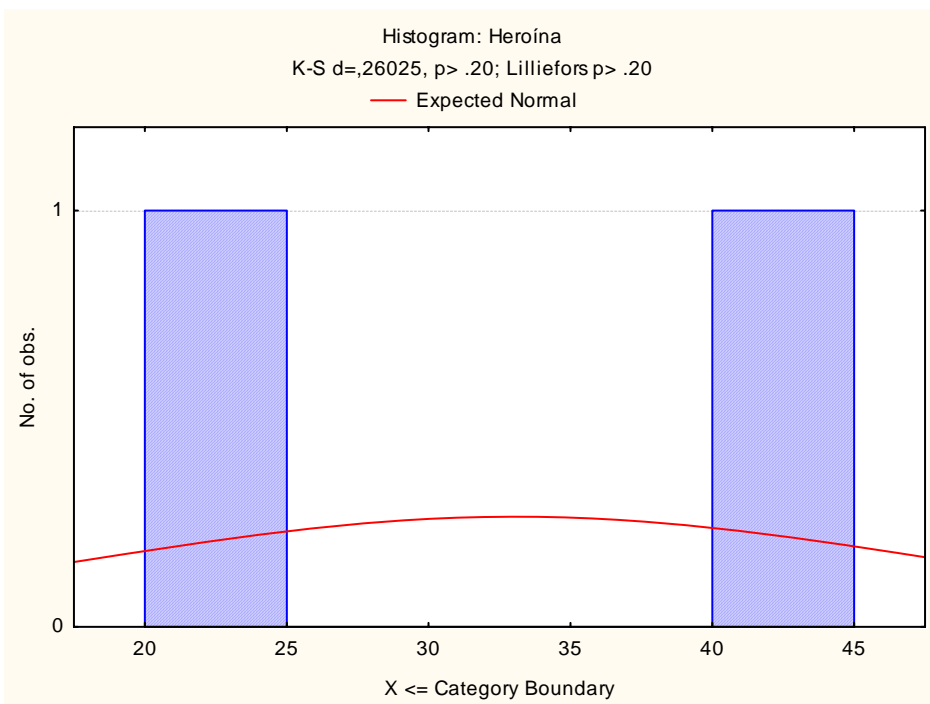
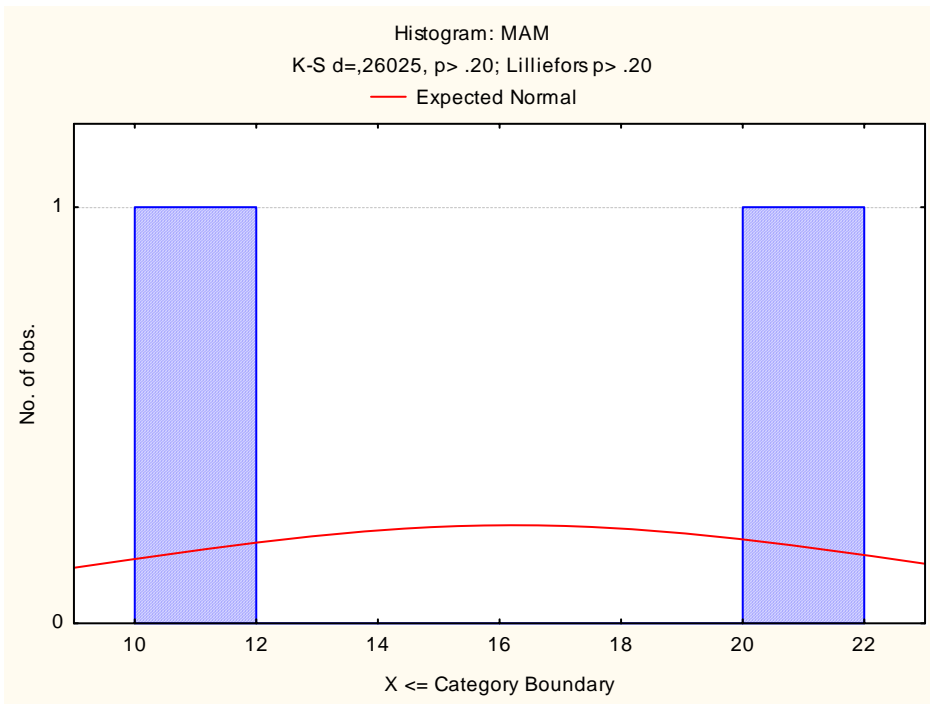
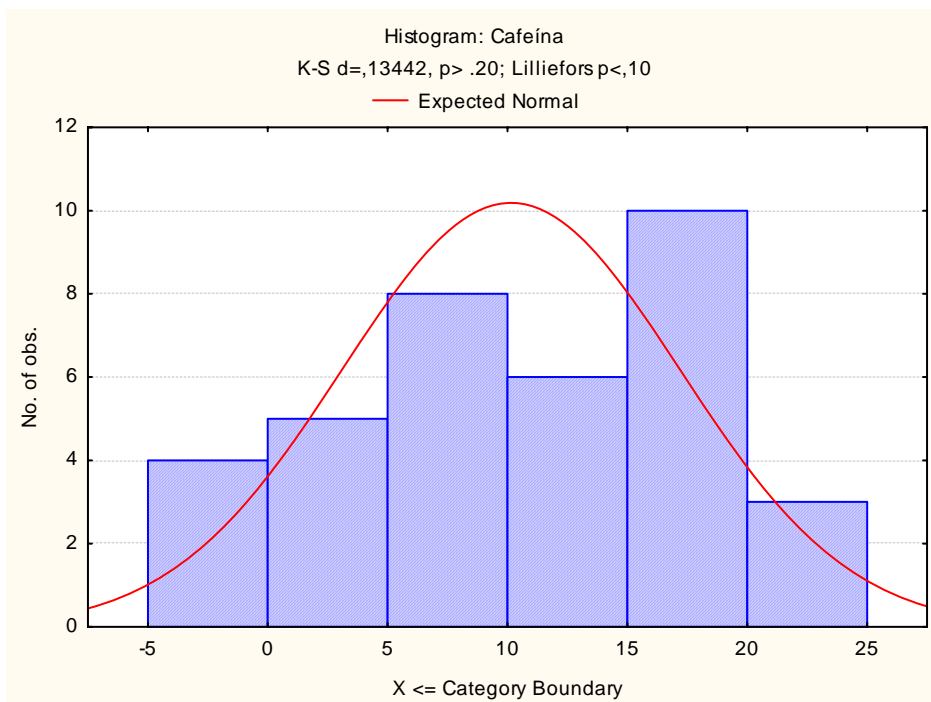
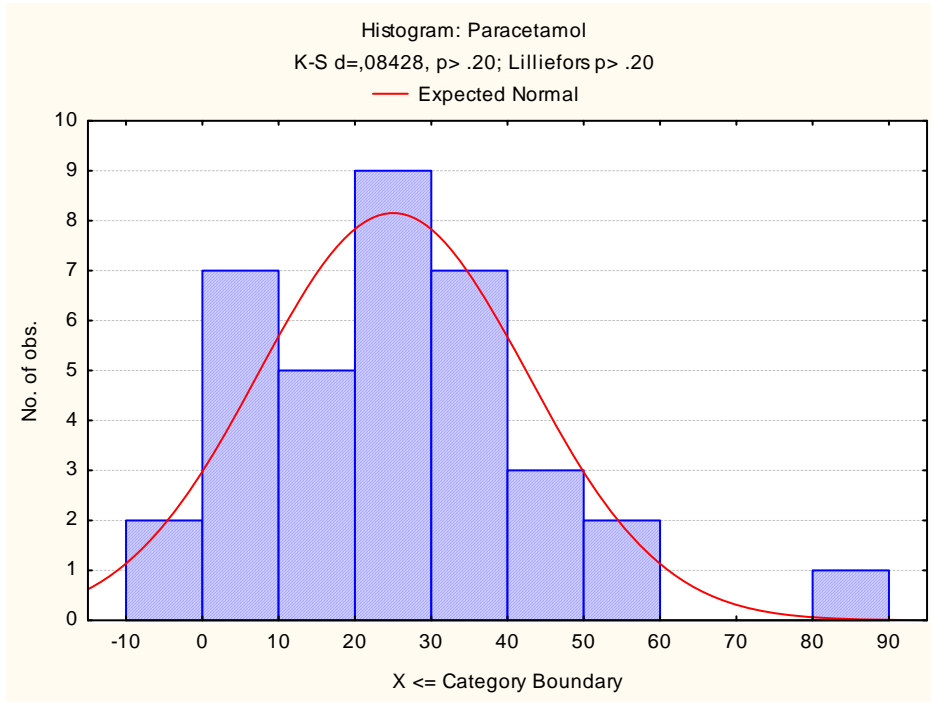
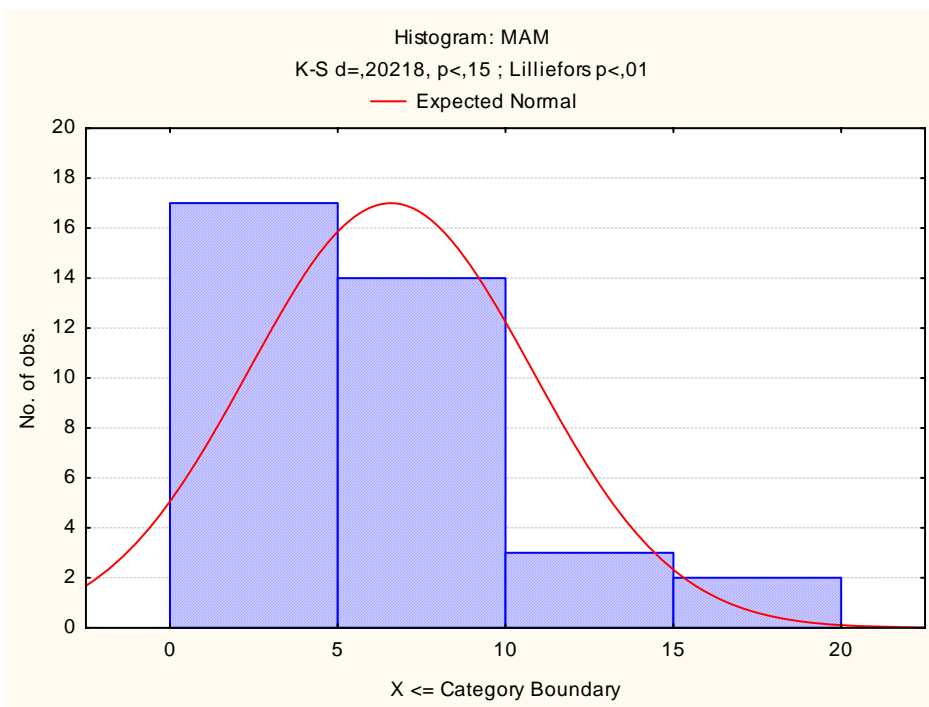
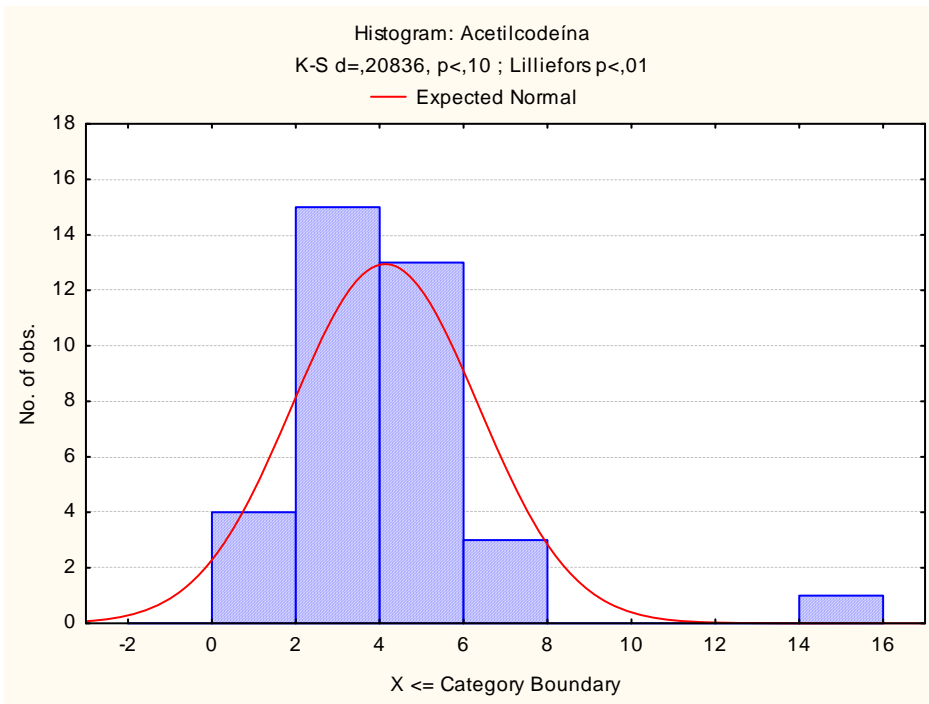


Figura IIA – Histogramas de todas as variáveis na zona das Caldas da Raínha.

Anexo II

Histogramas das variáveis em estudo para os 4 grupos formados, Lisboa, Norte de Lisboa, Sul de Lisboa e Ilhas.





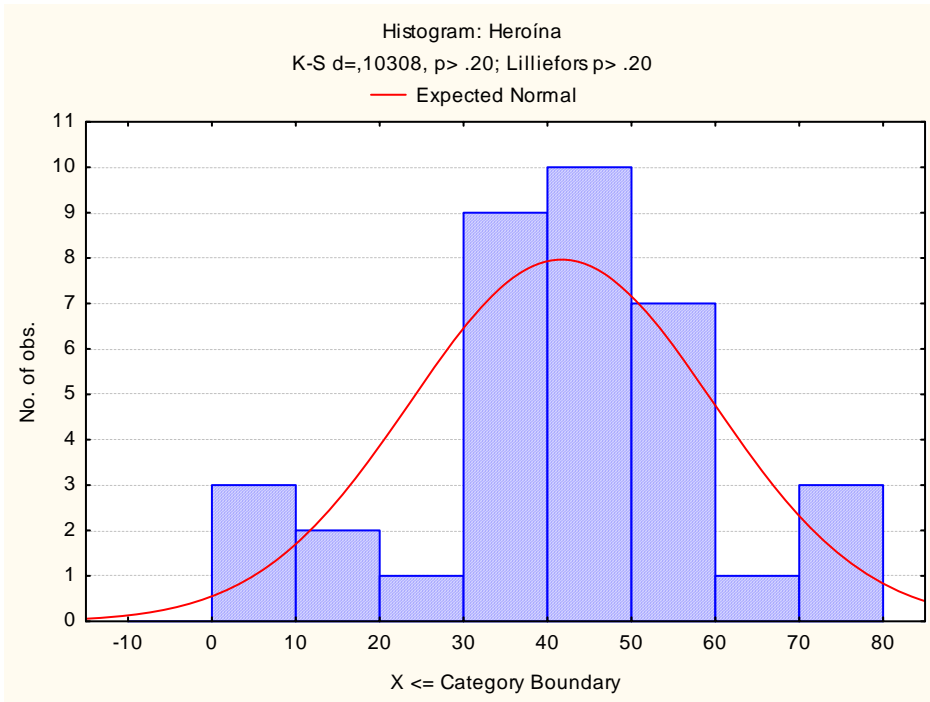
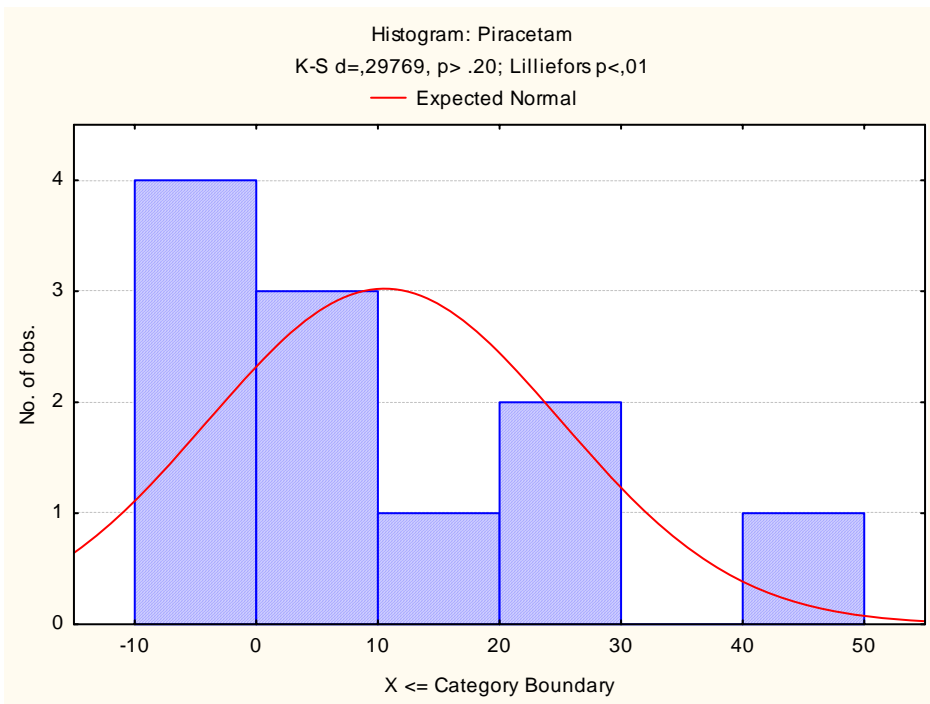
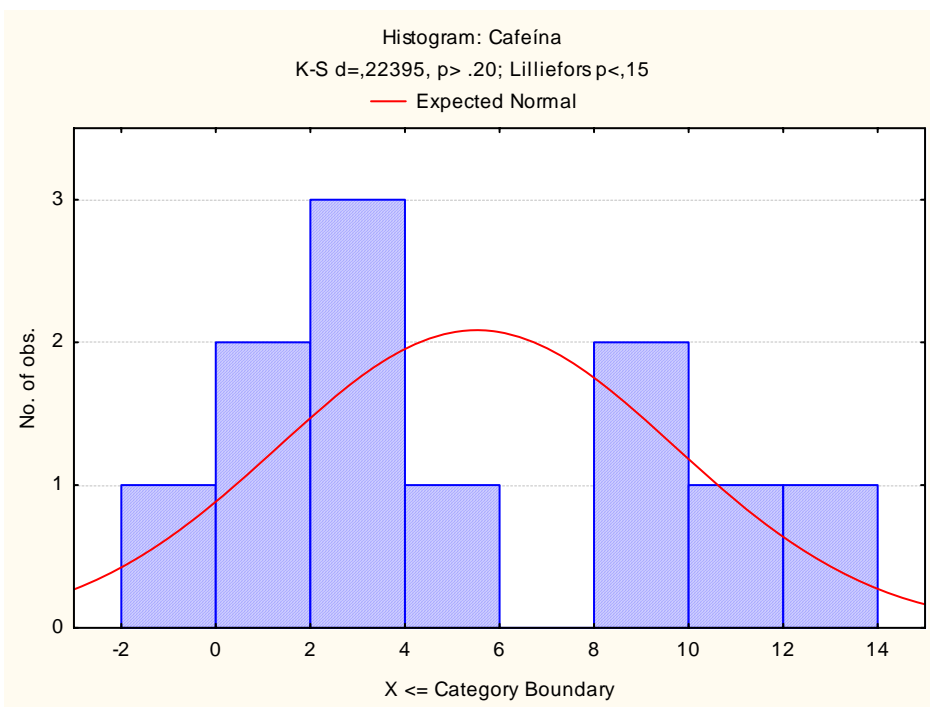
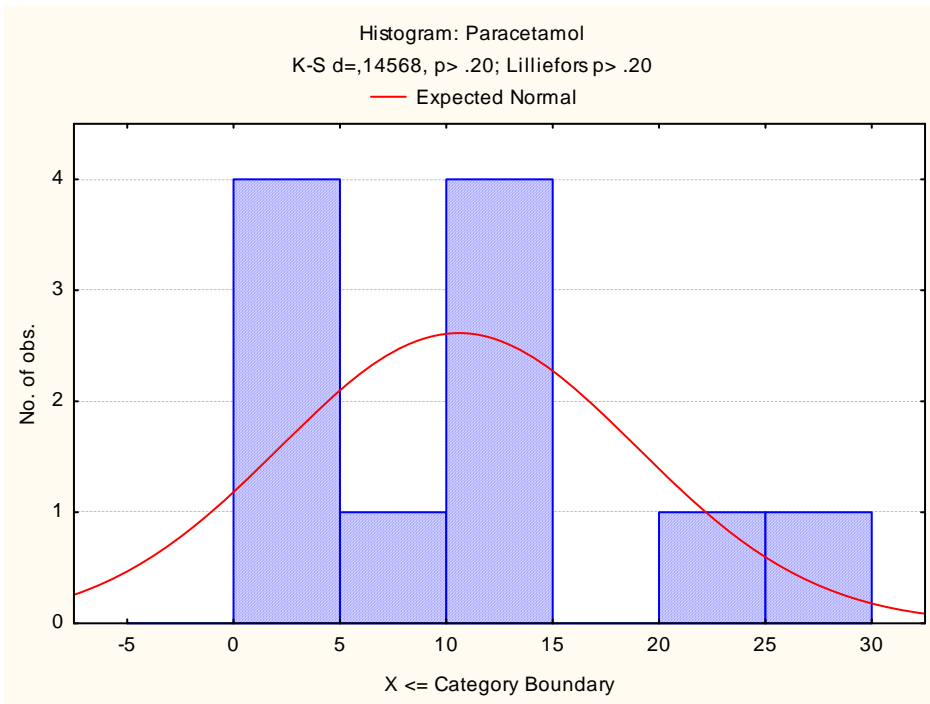
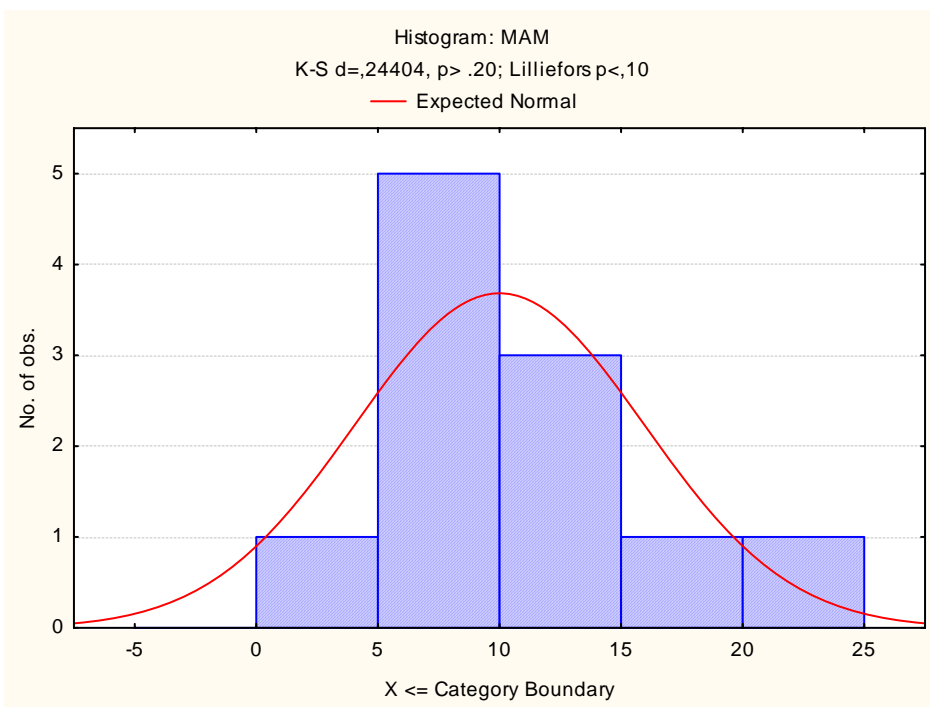
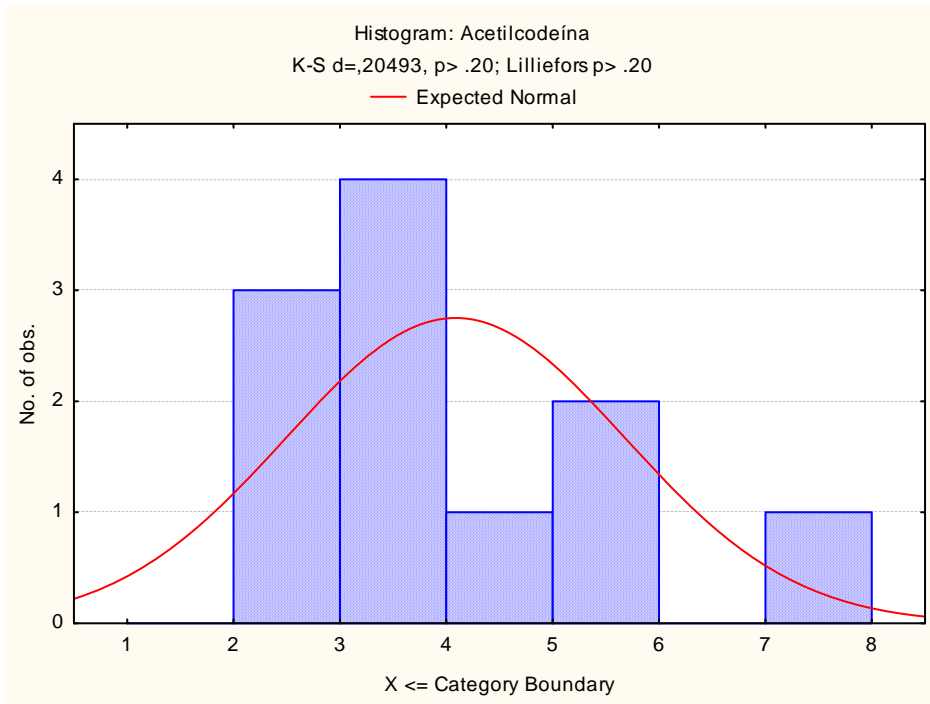


Figura 12A – Histogramas dos 6 componentes das amostras de Heroína na zona de Lisboa.







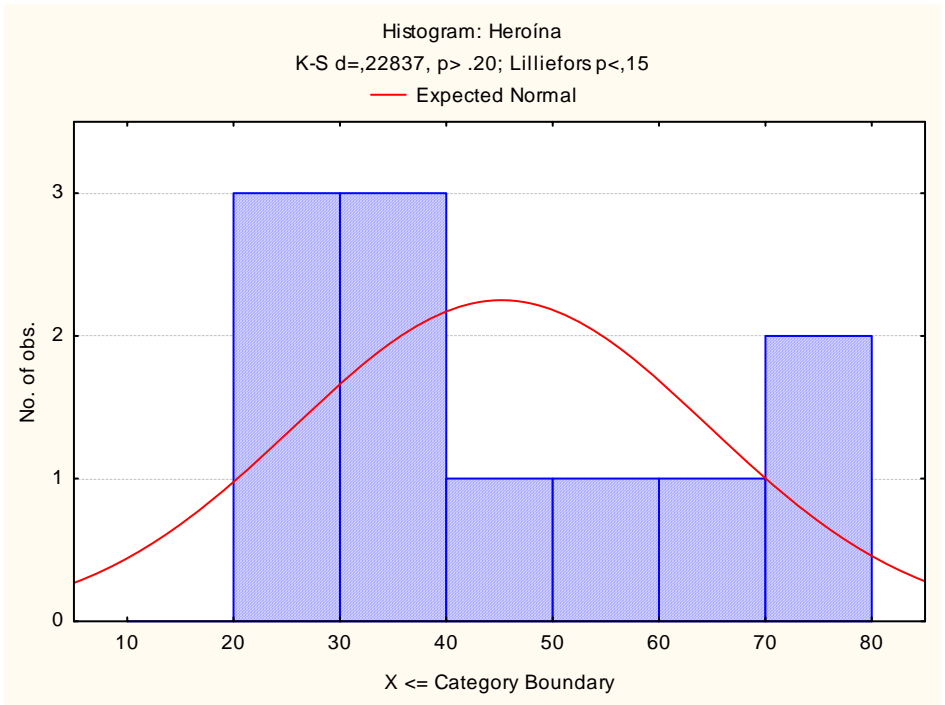
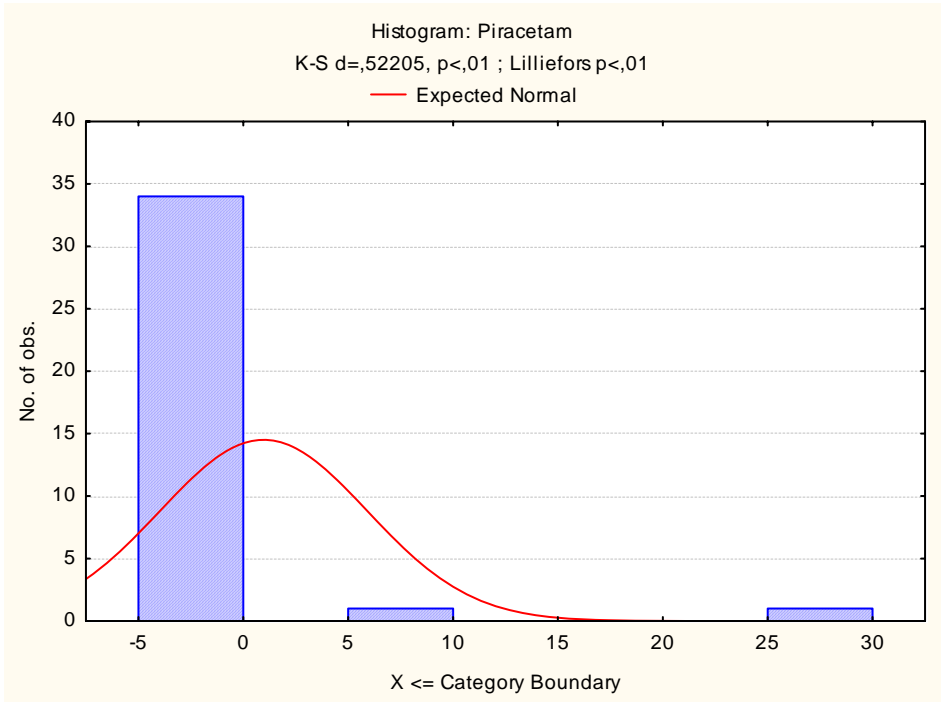
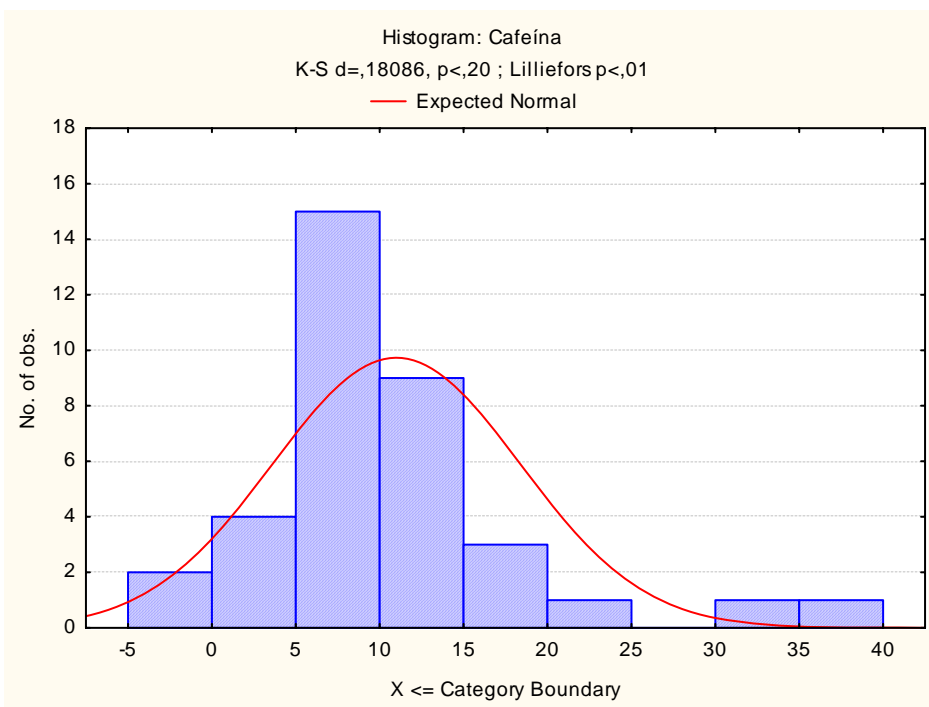
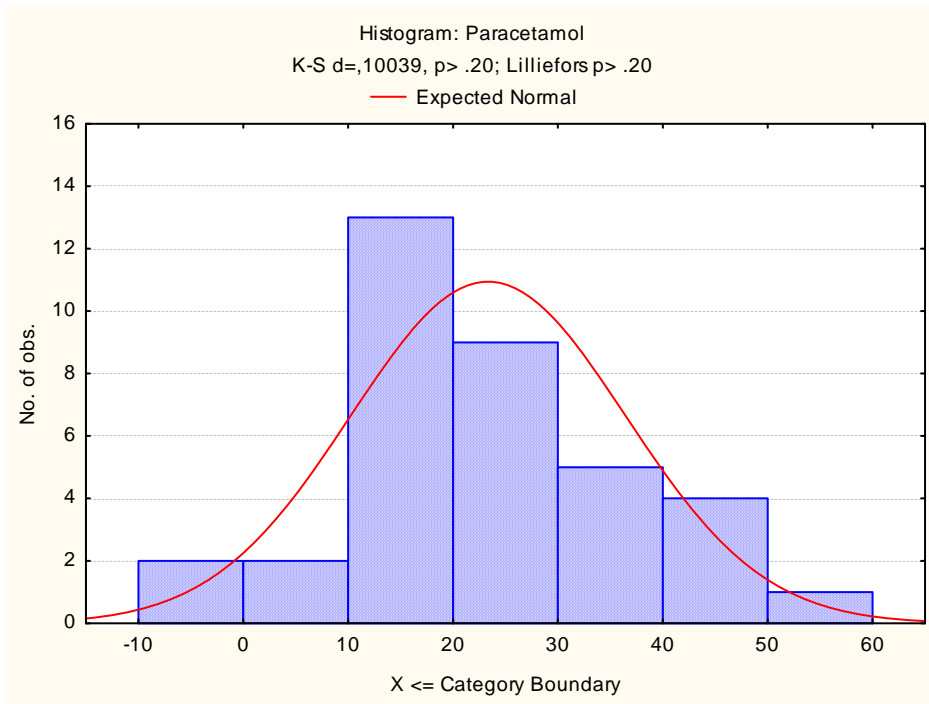
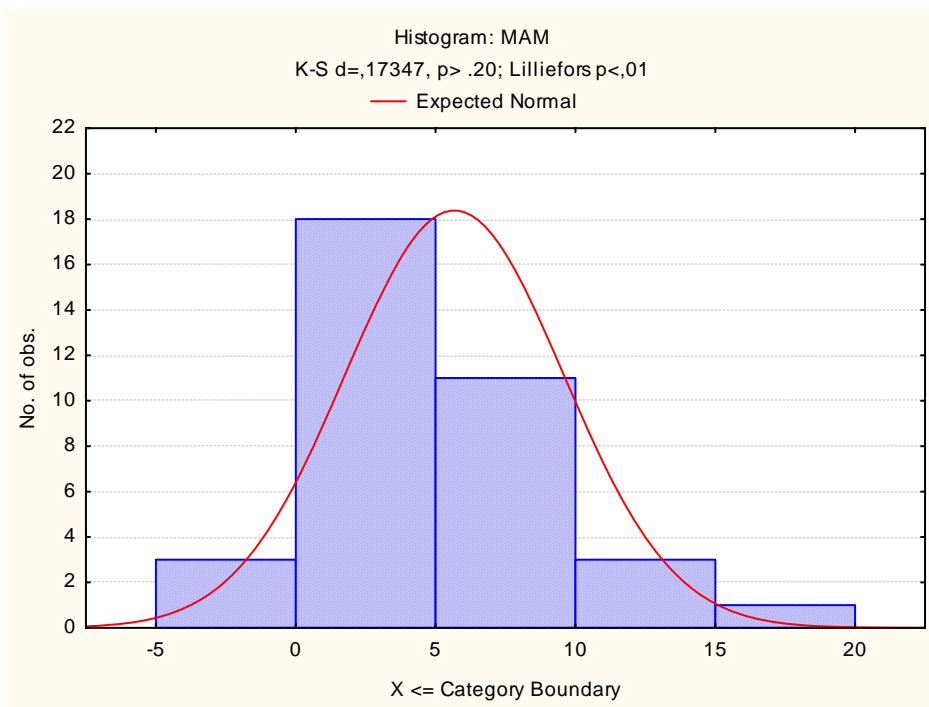
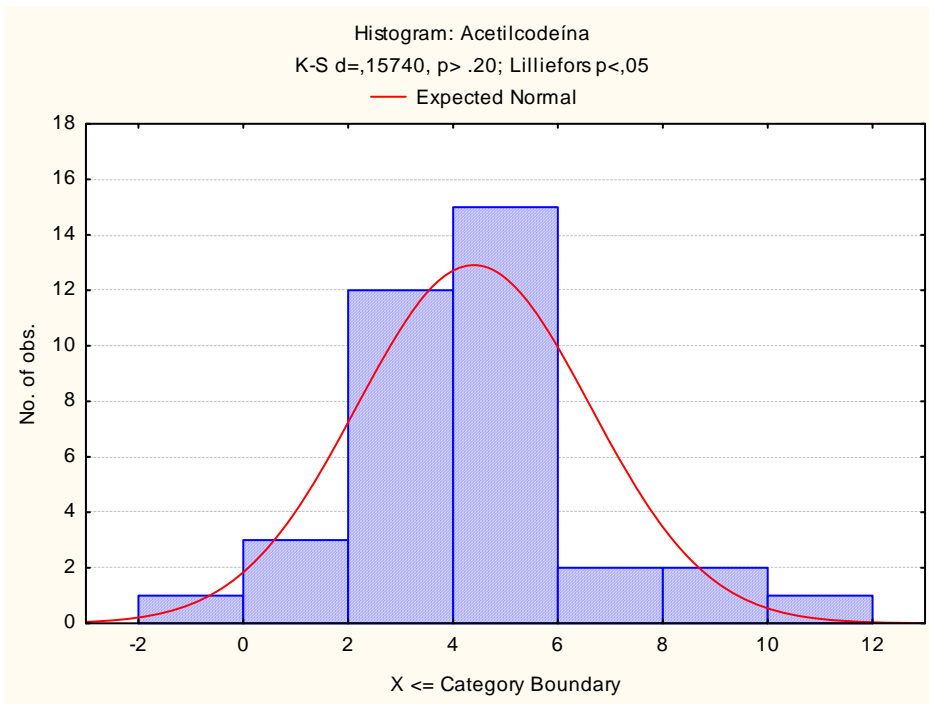


Figura 13A – Histogramas dos 6 componentes das amostras de Heroína na zona a Norte de Lisboa.







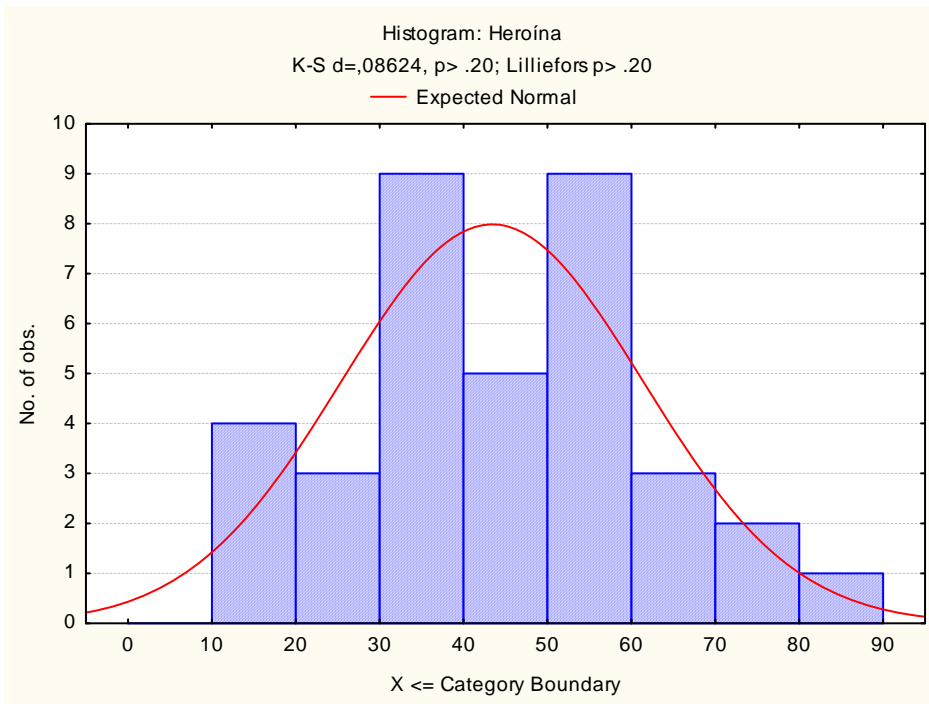
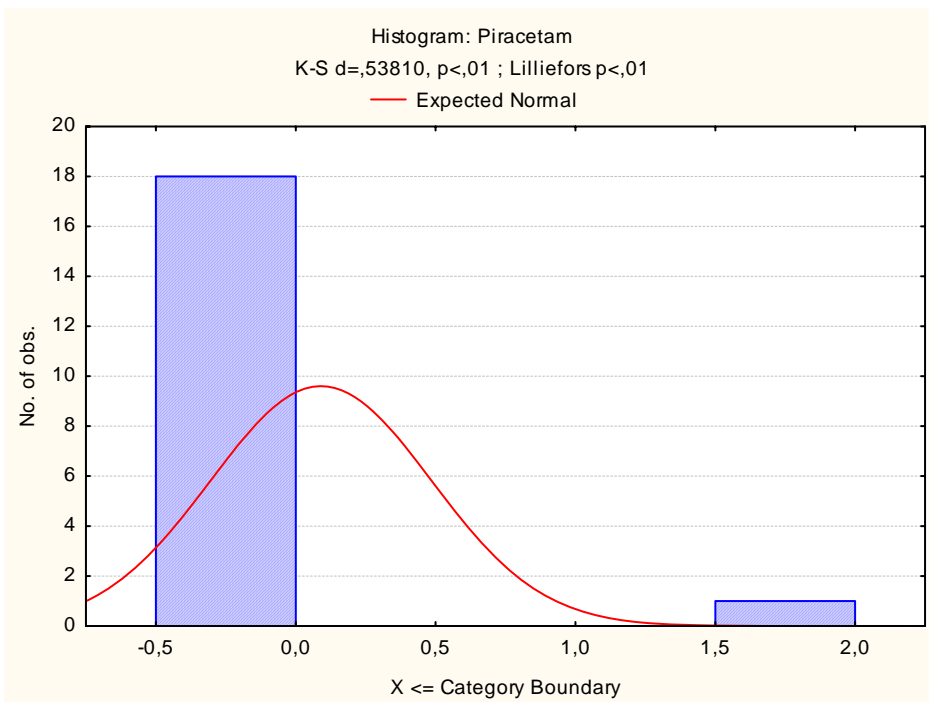
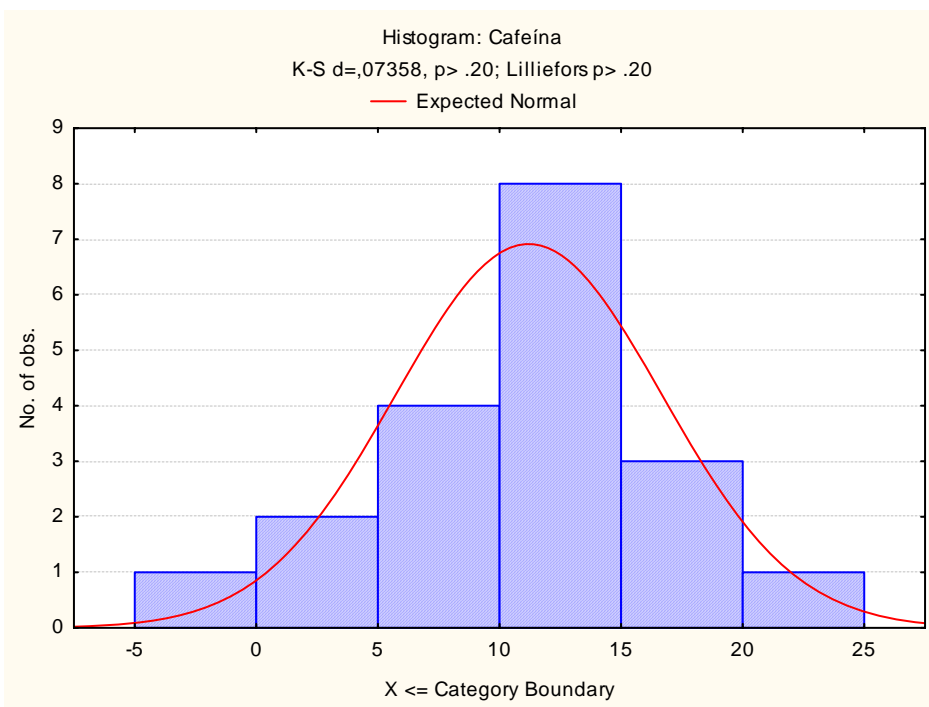
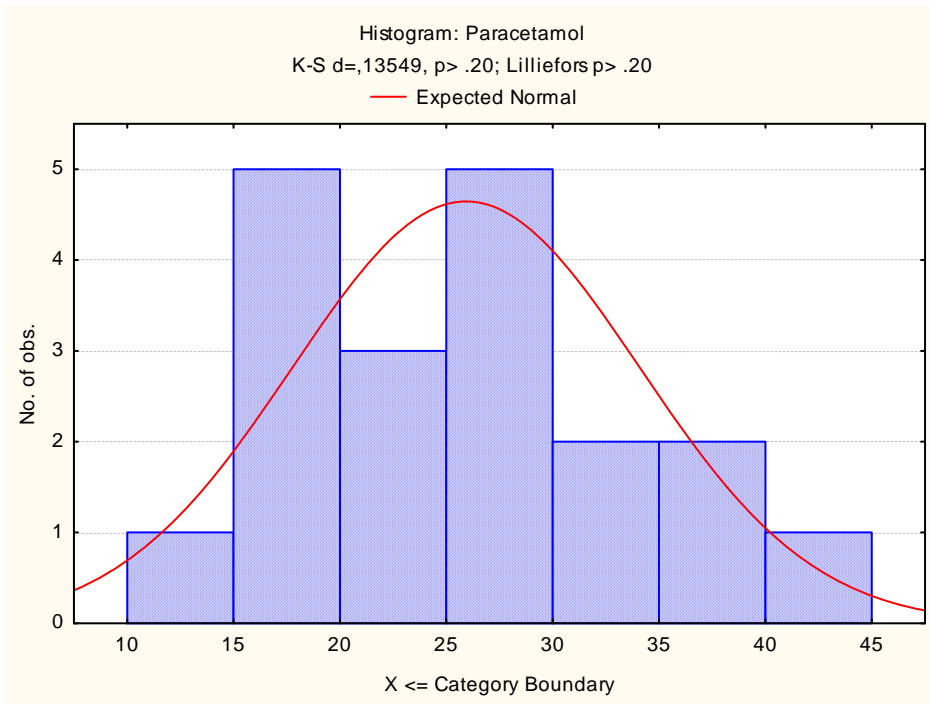
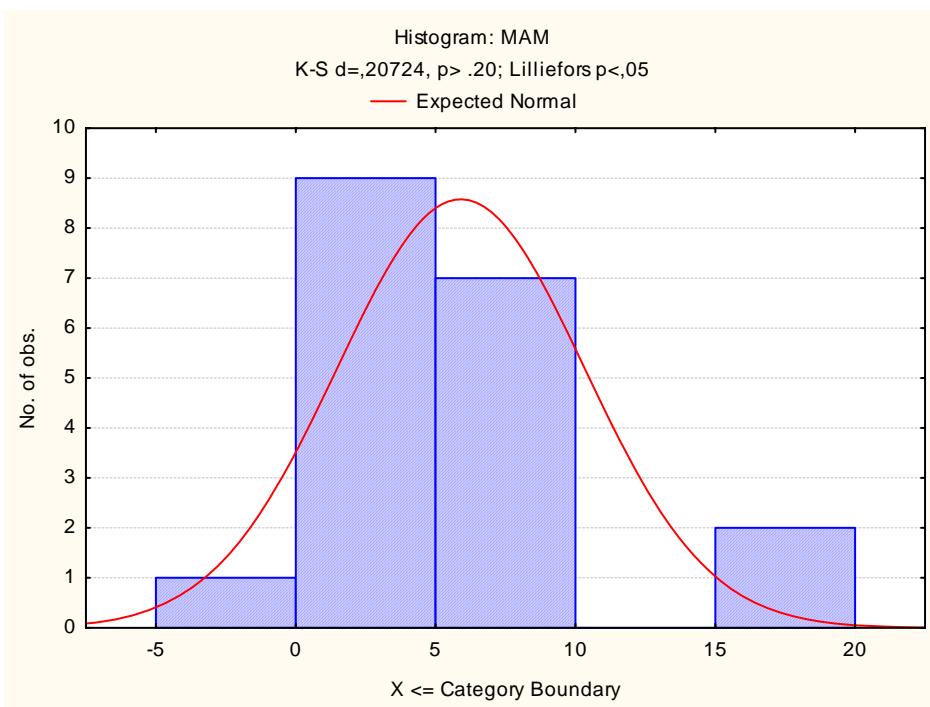
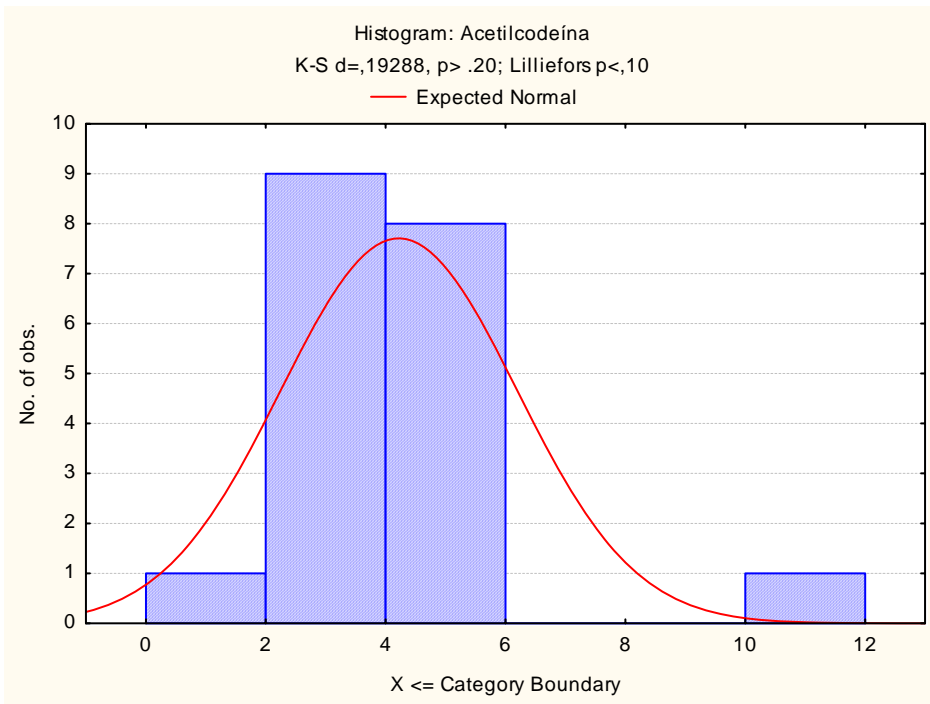


Figura 14A – Histogramas dos 6 componentes das amostras de Heroína na zona a Sul de Lisboa.







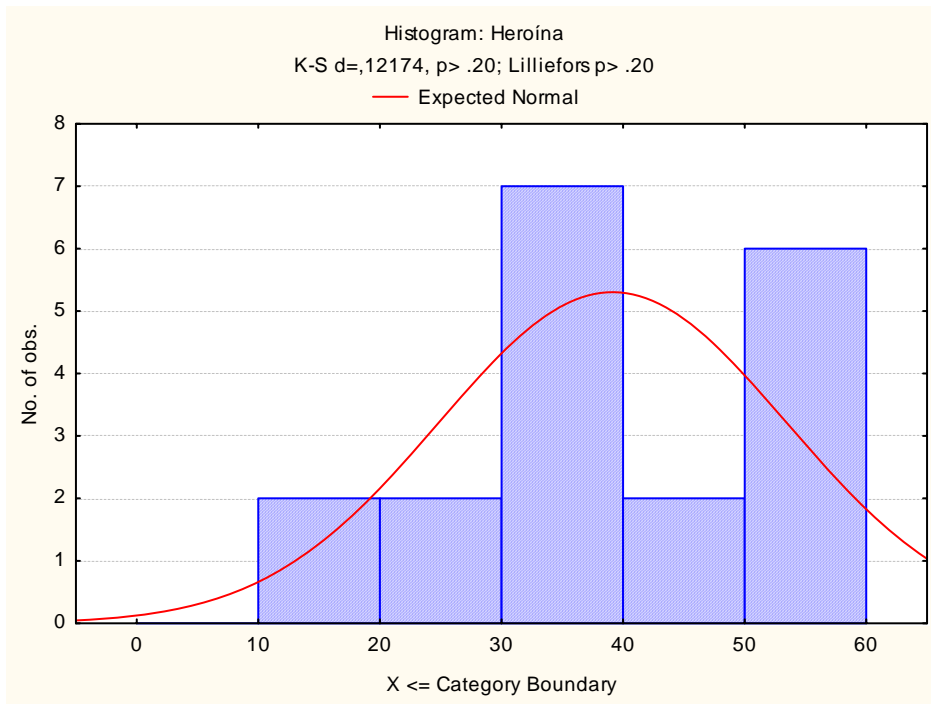


Figura 15A – Histogramas dos 6 componentes das amostras de Heroína na zona das Ilhas.

Anexo III

Tabela IA – Matriz de correlação das 102 amostras, calculada através do coeficiente de Pearson no programa statistica®.

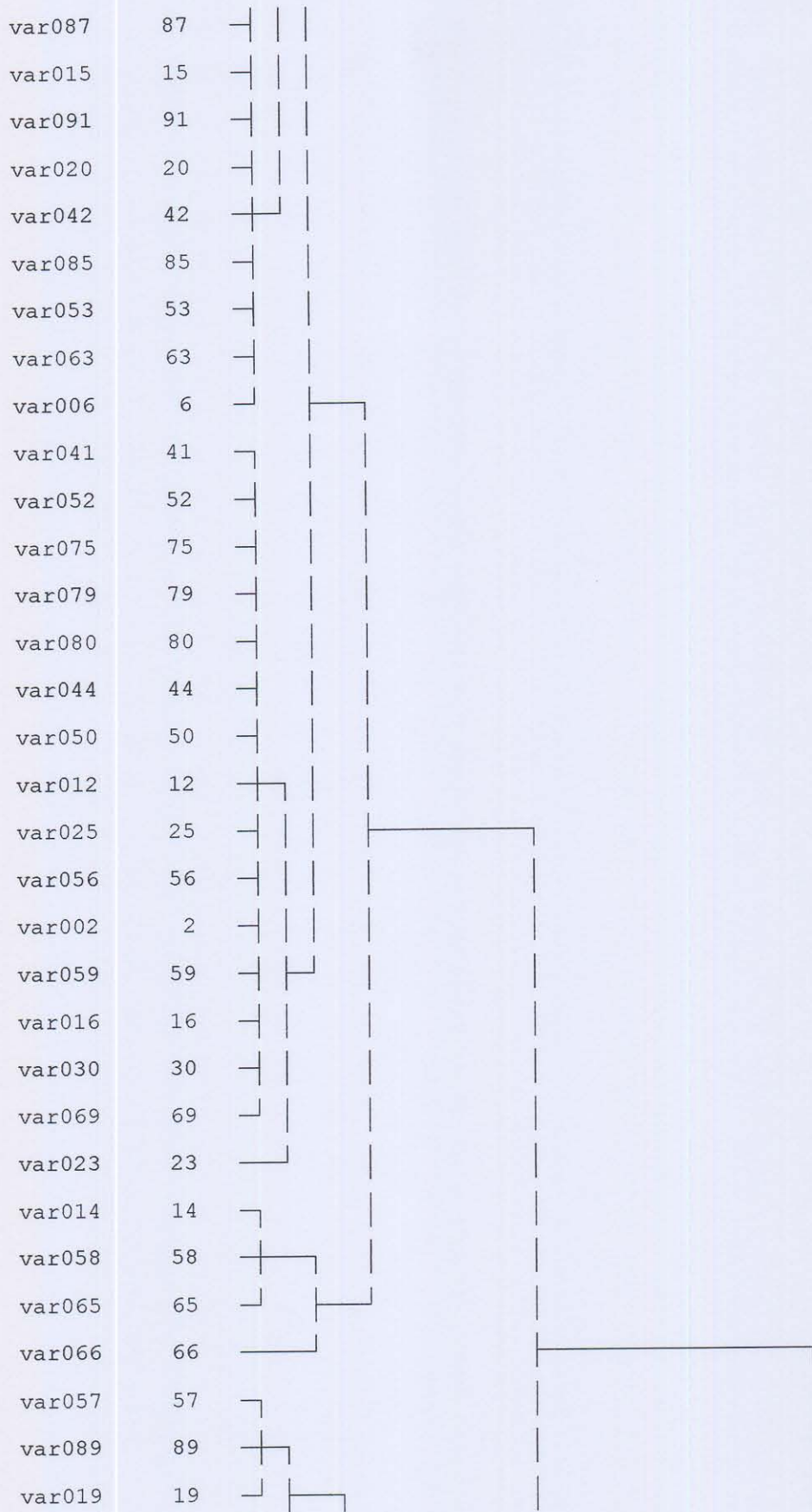
Devido ao tamanho do quadro que deveria figurar na presente página, o mesmo figura em ficheiro autónomo, em formato Excel

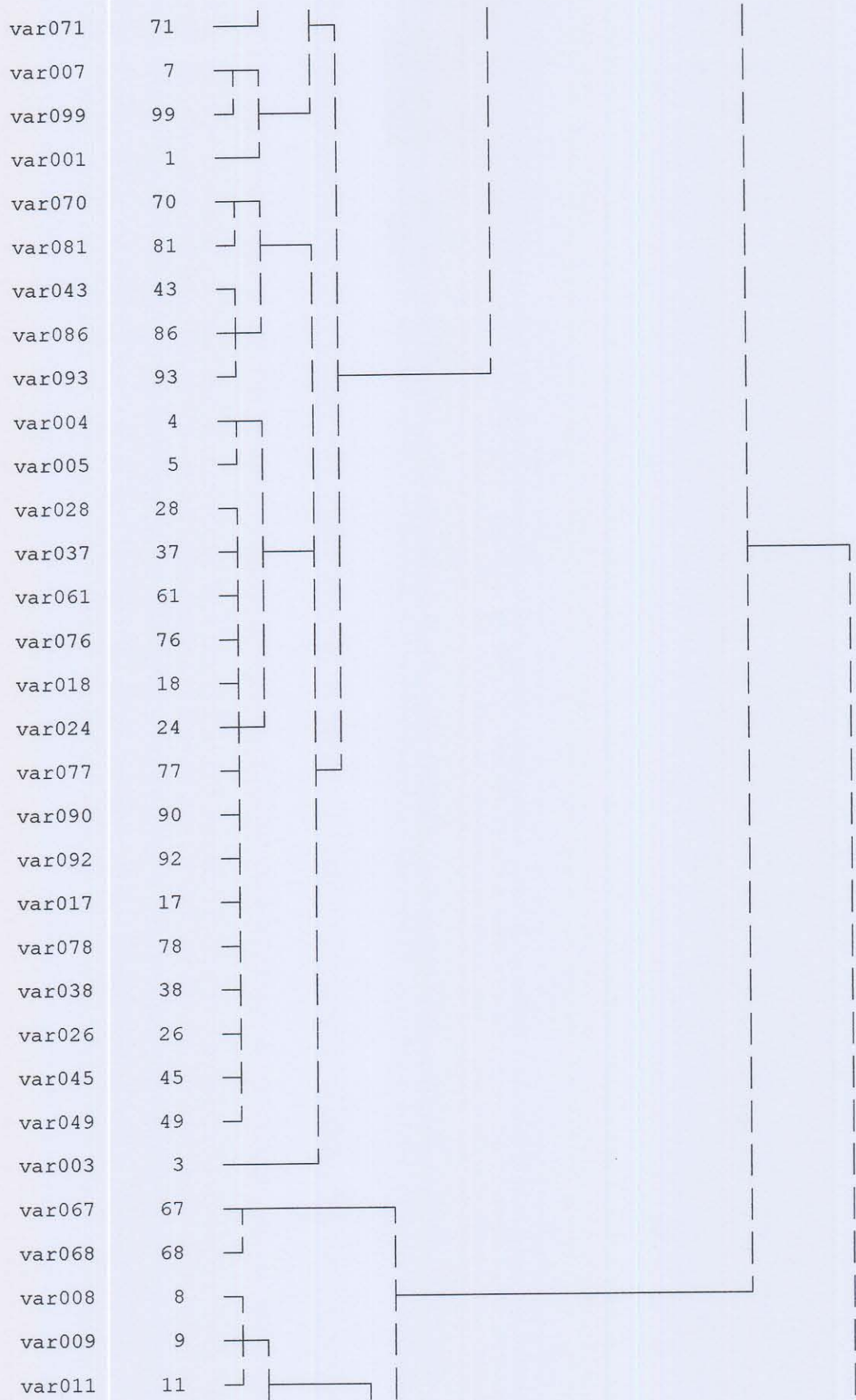
Tabela 2A – *Matriz de correlação das razões das 102 amostras, calculada através do coeficiente de Pearson no programa statistica®.*

Devido ao tamanho do quadro que deveria figurar na presente página, o mesmo figura em ficheiro autónomo, em formato Excel

Anexo IV

var094	94	┌	
var100	100	┌	
var095	95	┌	
var047	47	┌	
var033	33	┌	
var084	84	┌	
var046	46	┌	
var039	39	┌	
var101	101	┌	┌
var062	62	┌	
var097	97	┌	
var096	96	┌	
var098	98	┌	
var029	29	┌	
var036	36	┌	
var040	40	┌	
var074	74	┌	
var021	21	┌	
var082	82	┌	
var088	88	┌	
var031	31	┌	
var102	102	┌	
var013	13	┌	┌
var055	55	┌	┌
var060	60	┌	
var027	27	┌	
var048	48	┌	





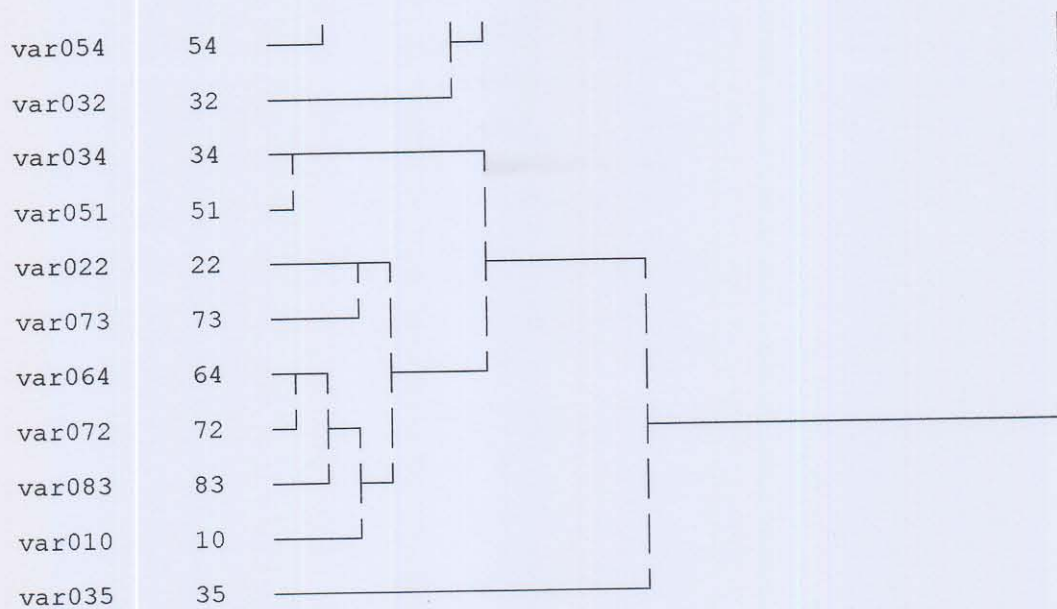
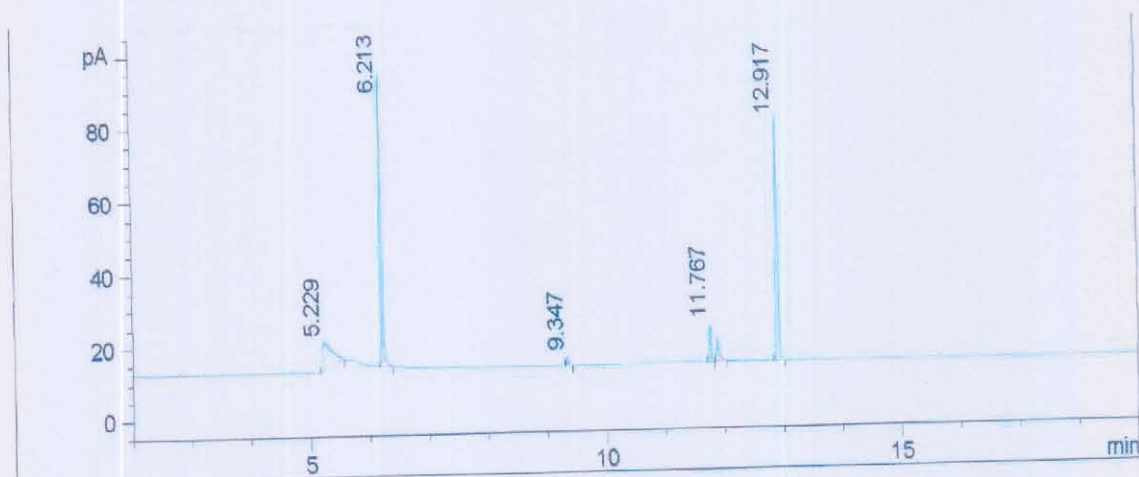


Figura 16A – Dendrograma dos Principais Componentes de análise dos compostos efectuado através do programa SPSS.

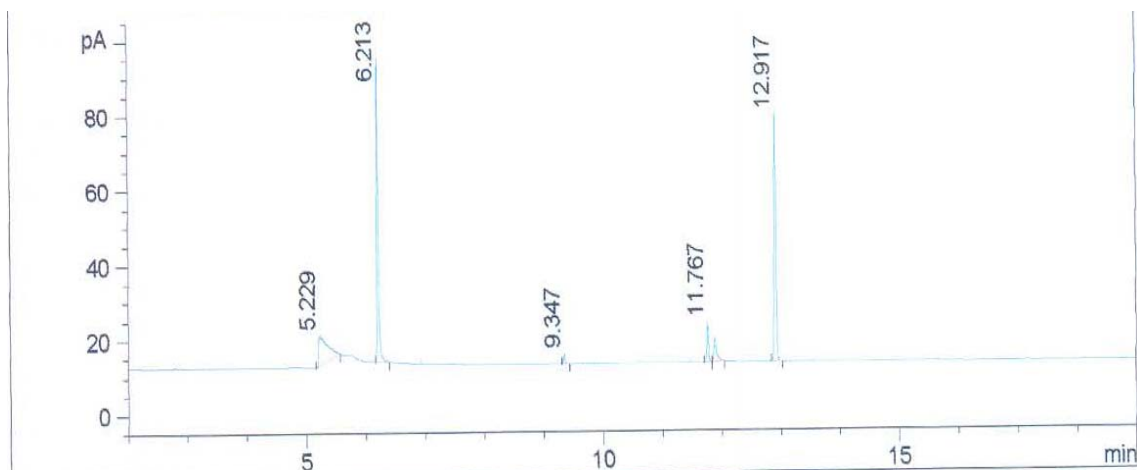
Anexo V



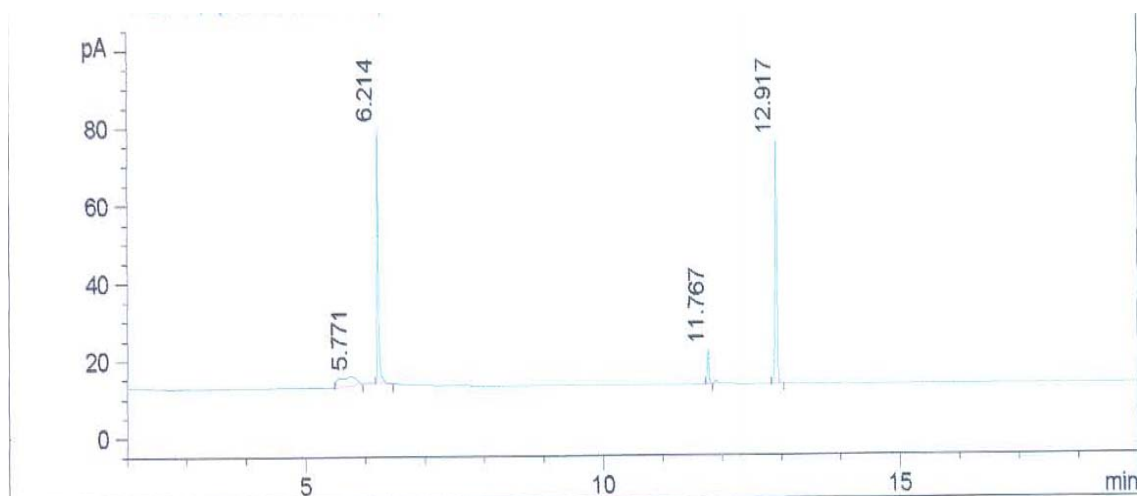
Amostra 1

Figura 16A – Dendograma dos Principais Componentes de análise dos compostos efectuado através do programa SPSS.

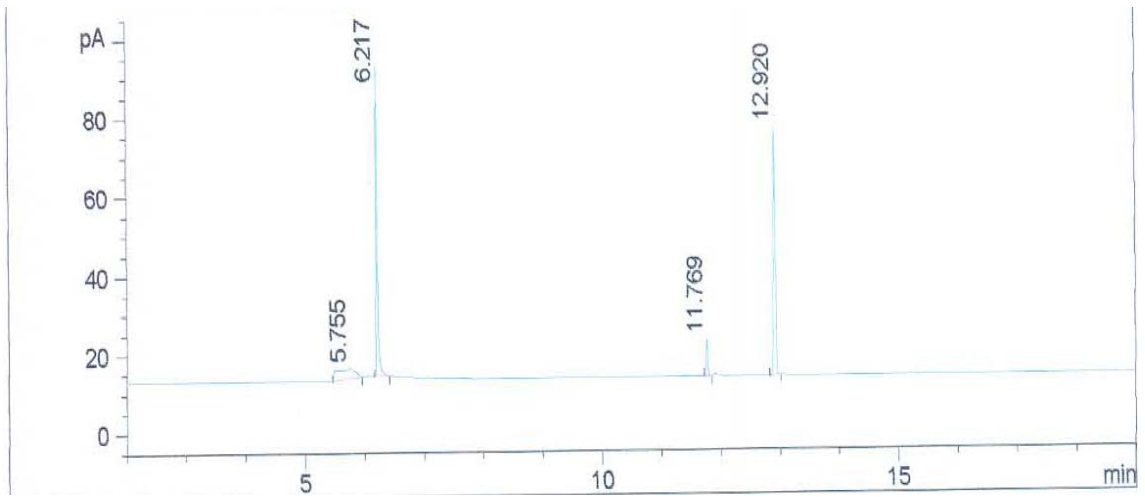
Anexo V



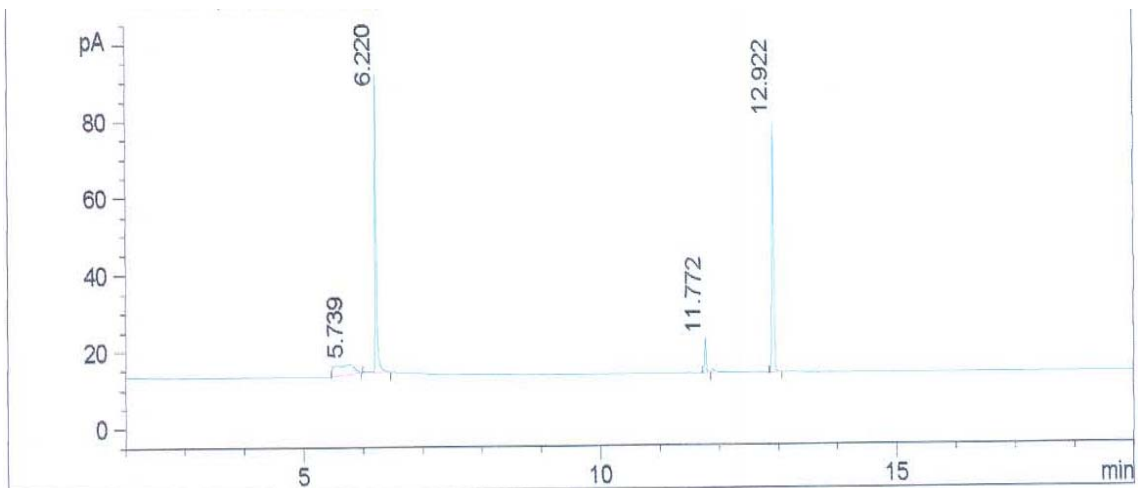
Amostra 1



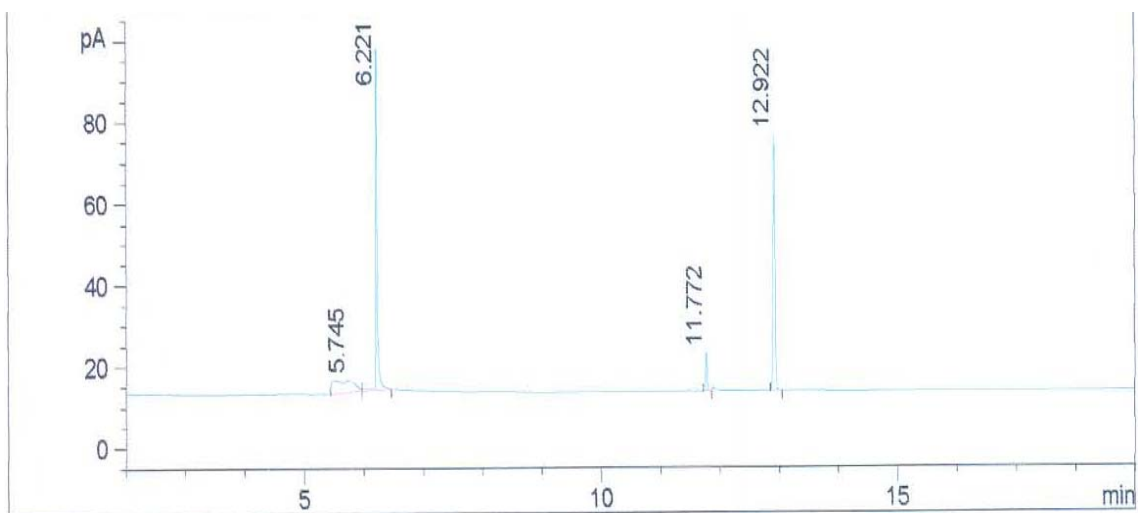
Amostra 2



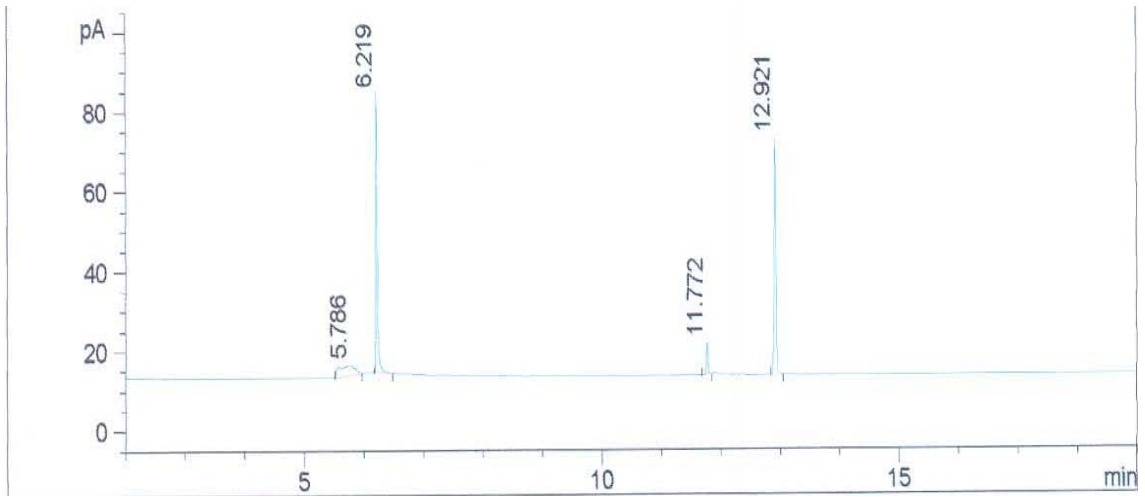
Amostra 3



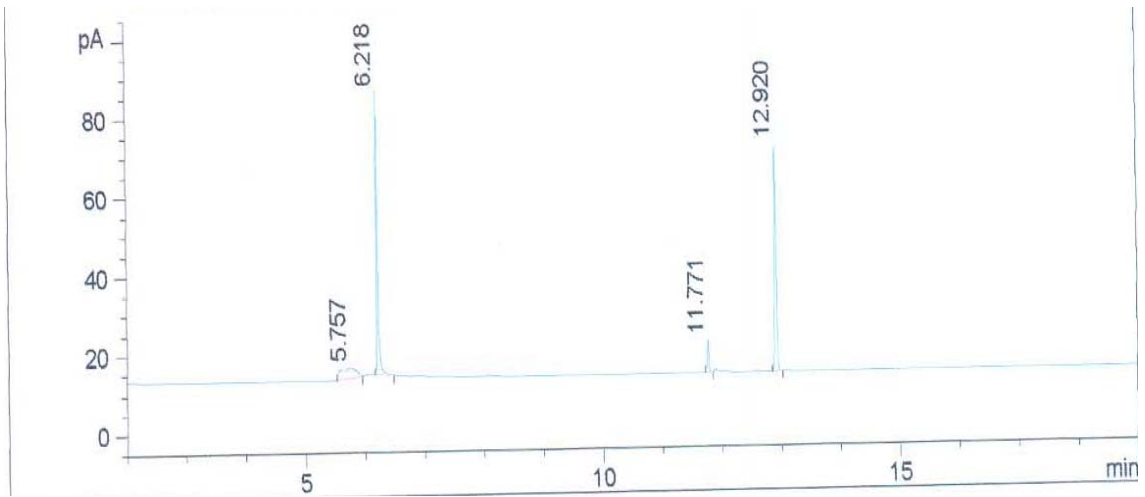
Amostra 4



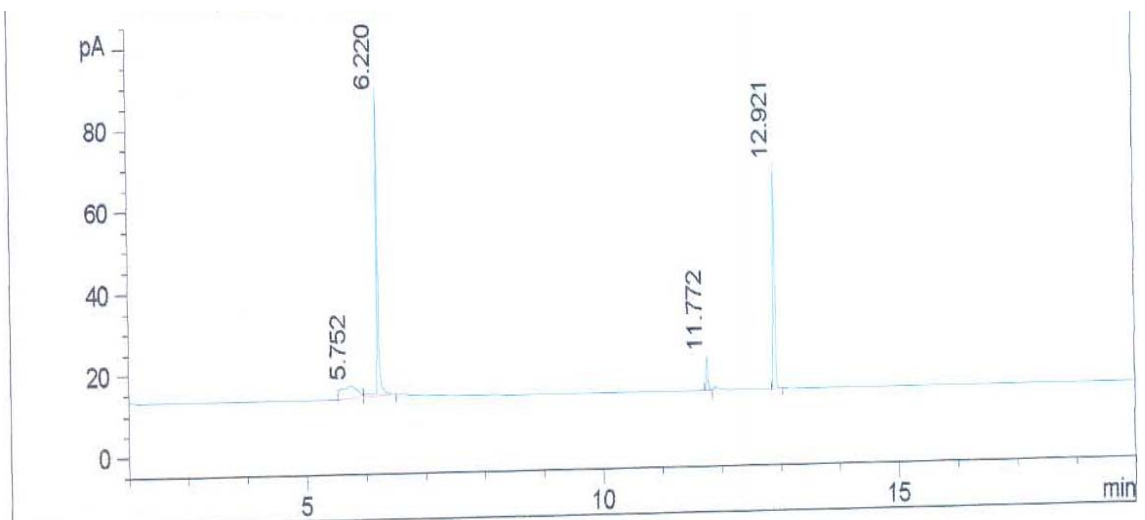
Amostra 5



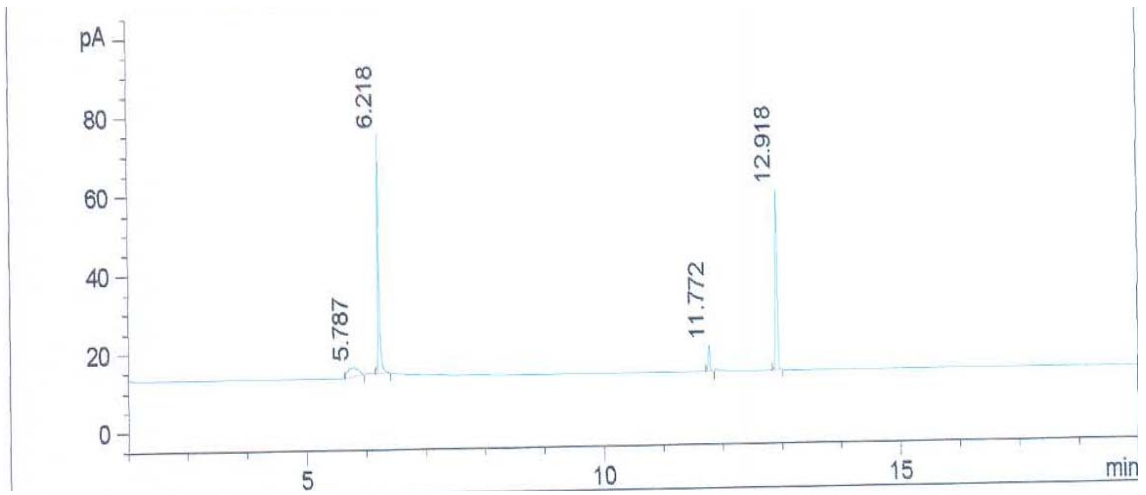
Amostra 6



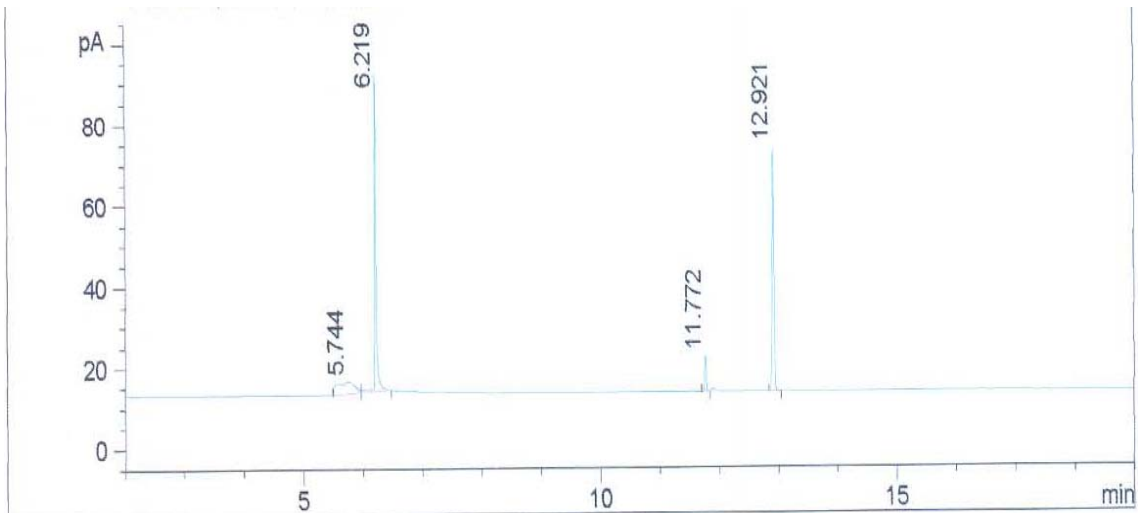
Amostra 7



Amostra 8

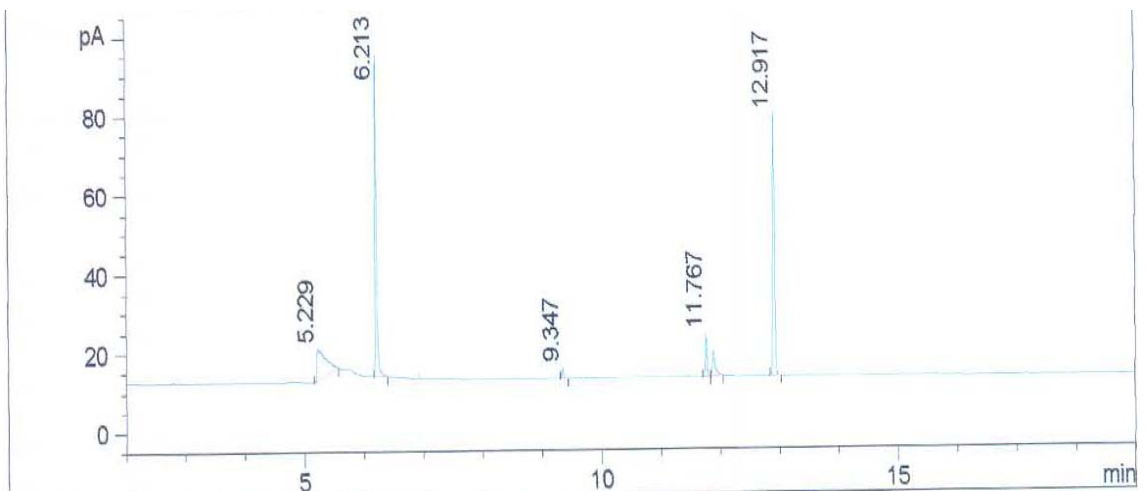


Amostra 9

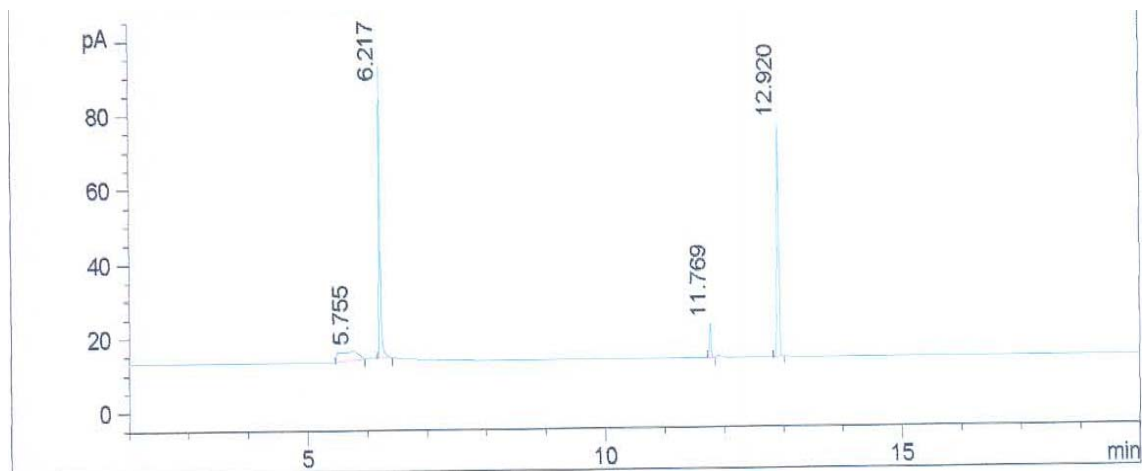


Amostra 10

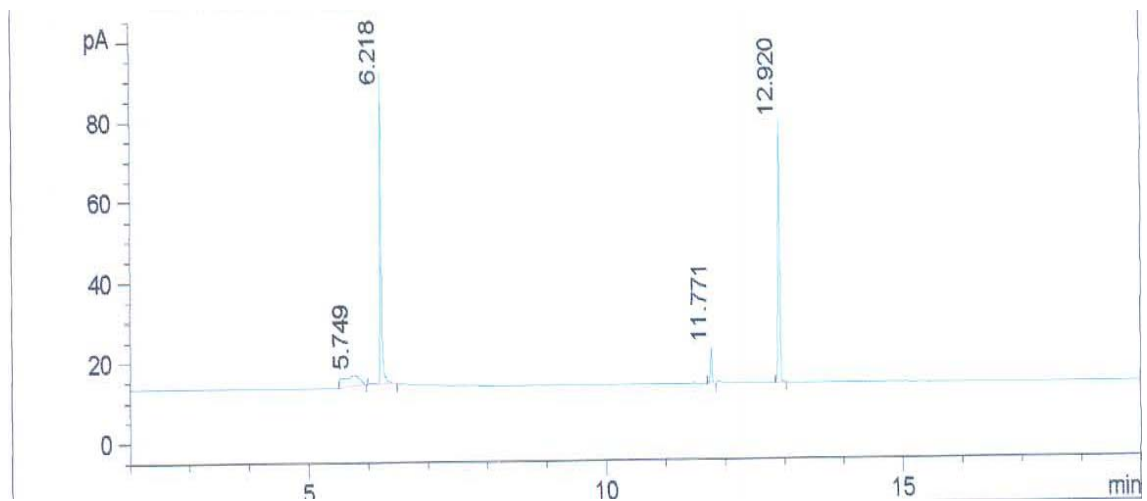
Figura 17A – Cromatogramas das amostras do lote 1



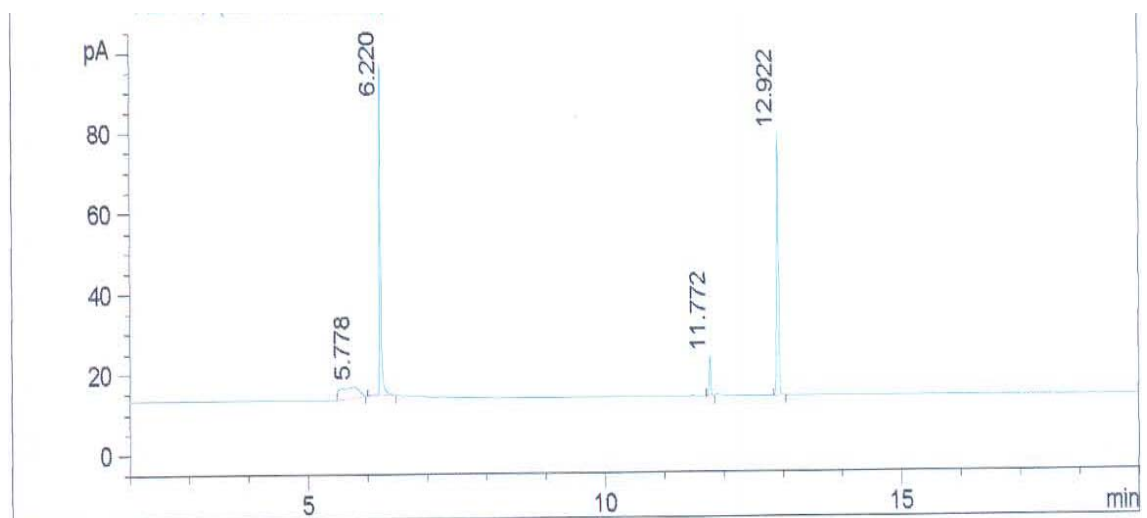
Amostra 1



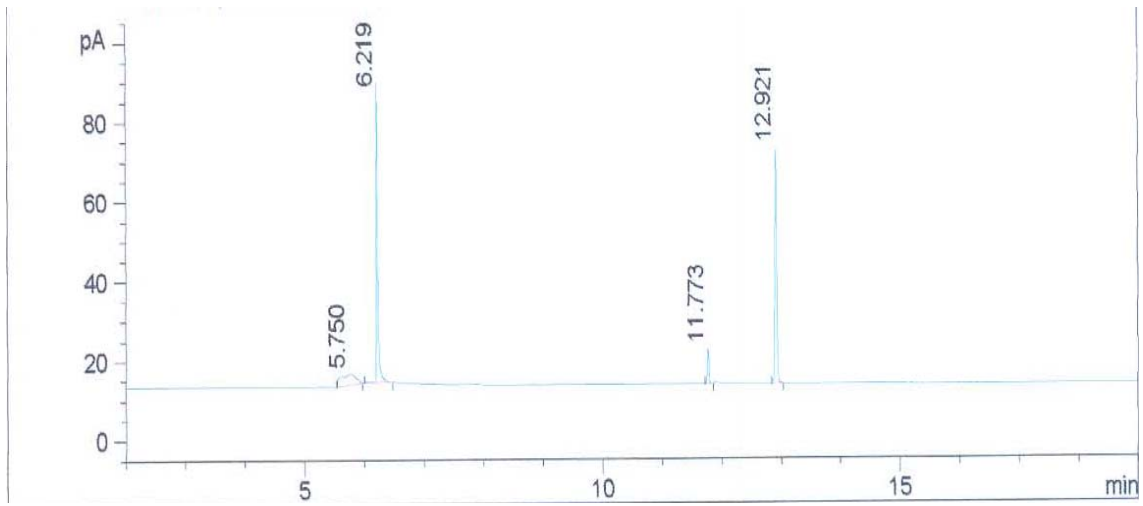
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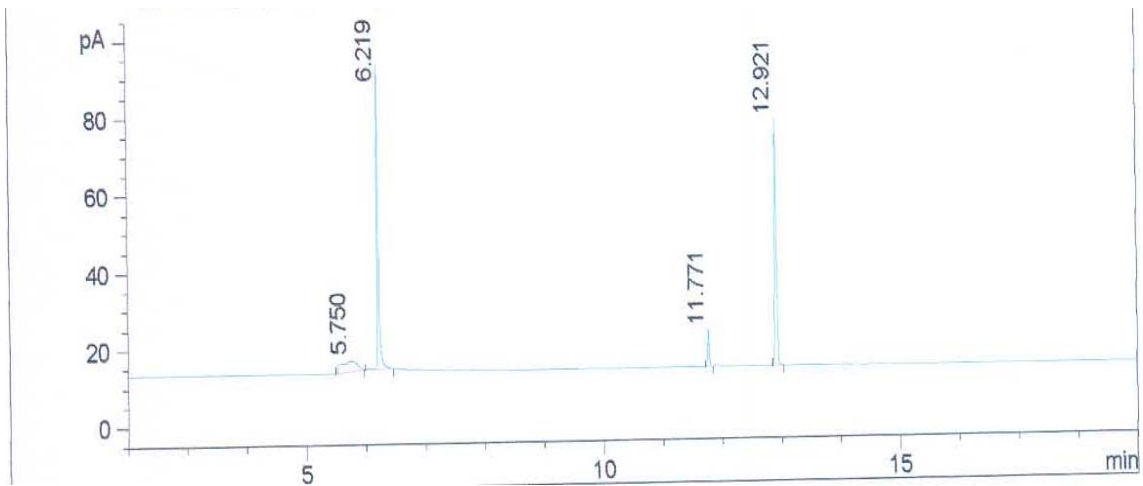
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Amostra 4



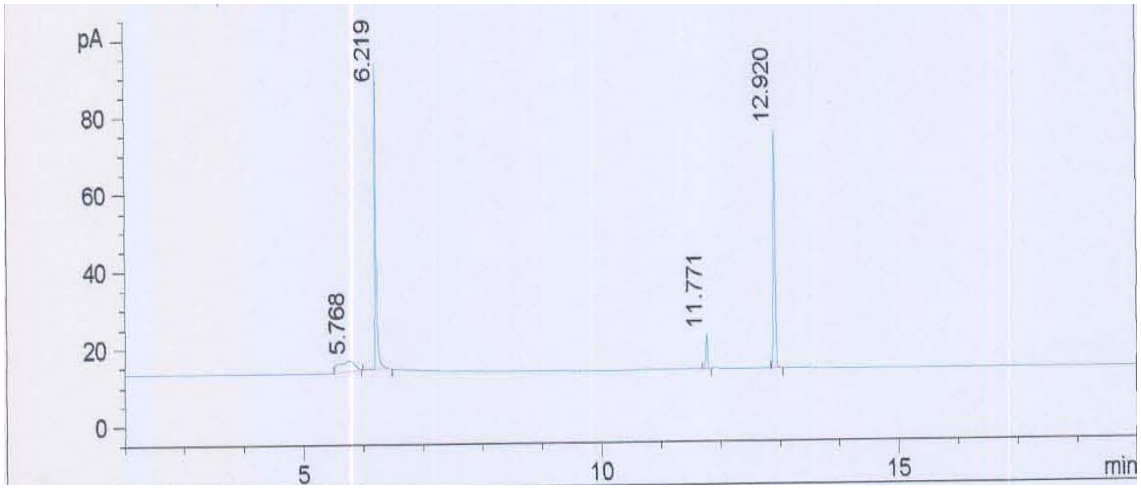
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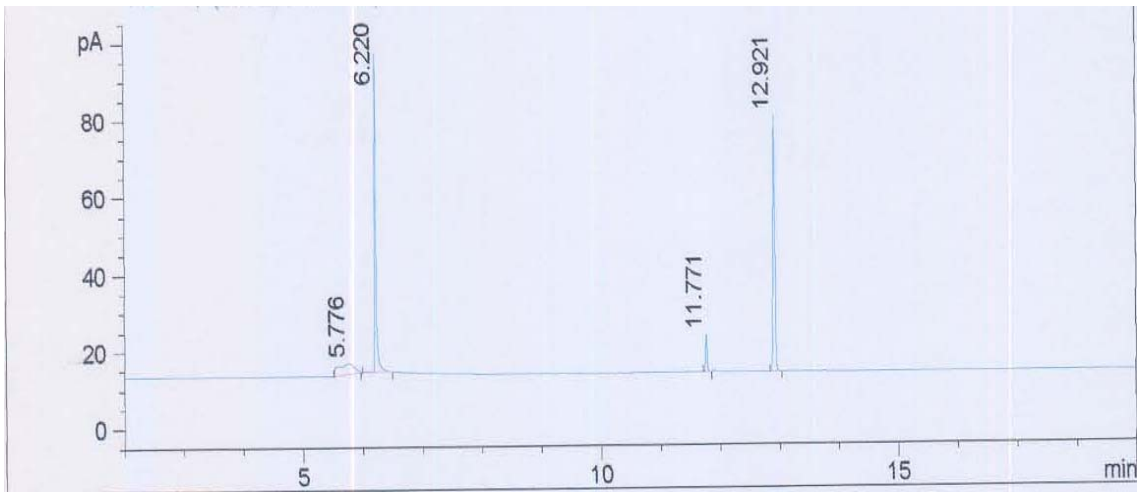
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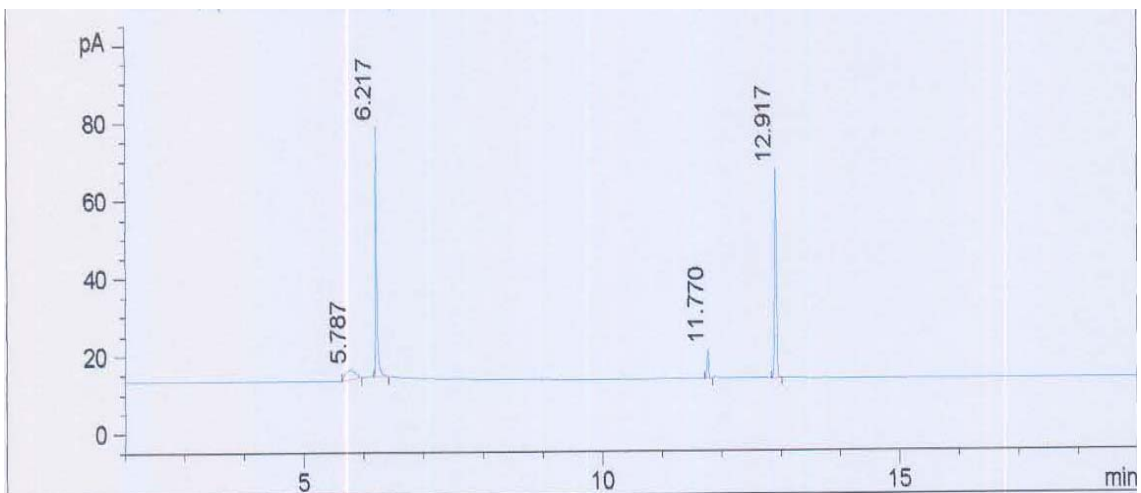
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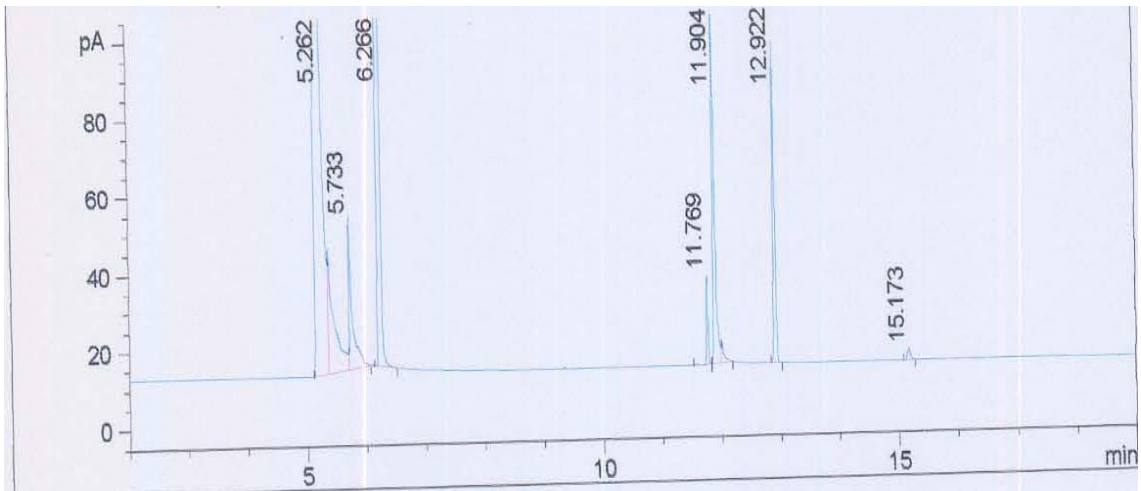


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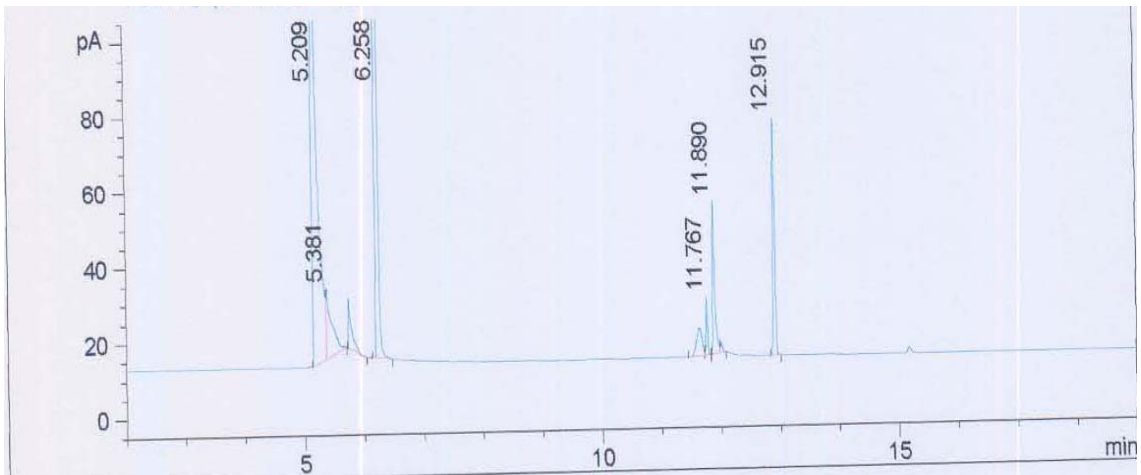


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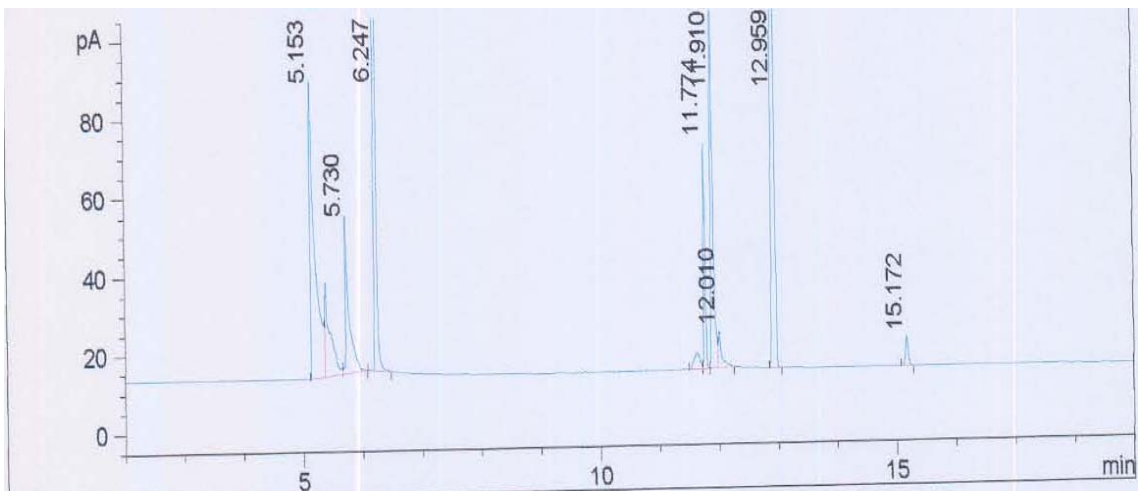
Figura 18A - Cromatogramas das amostras do lote 2



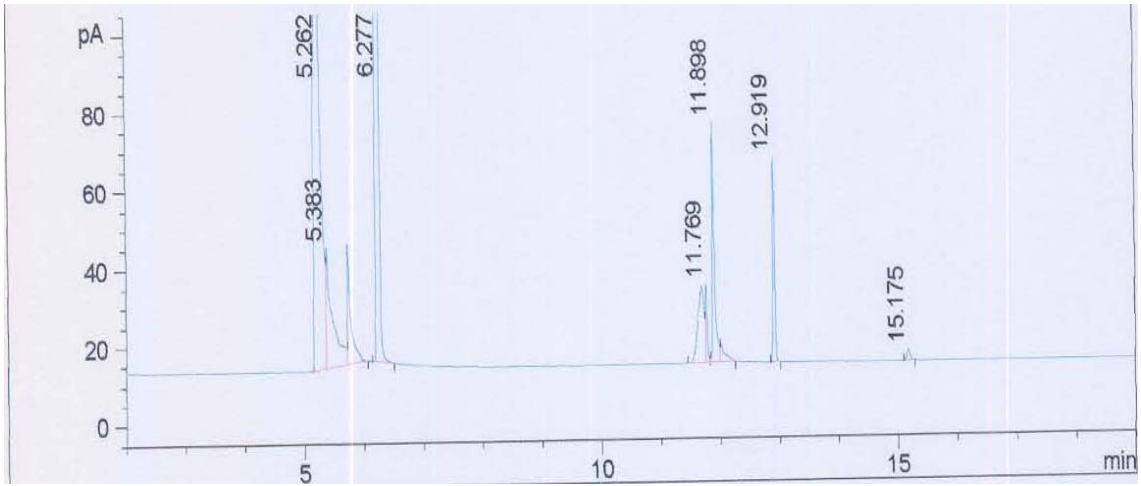
Amostra 1



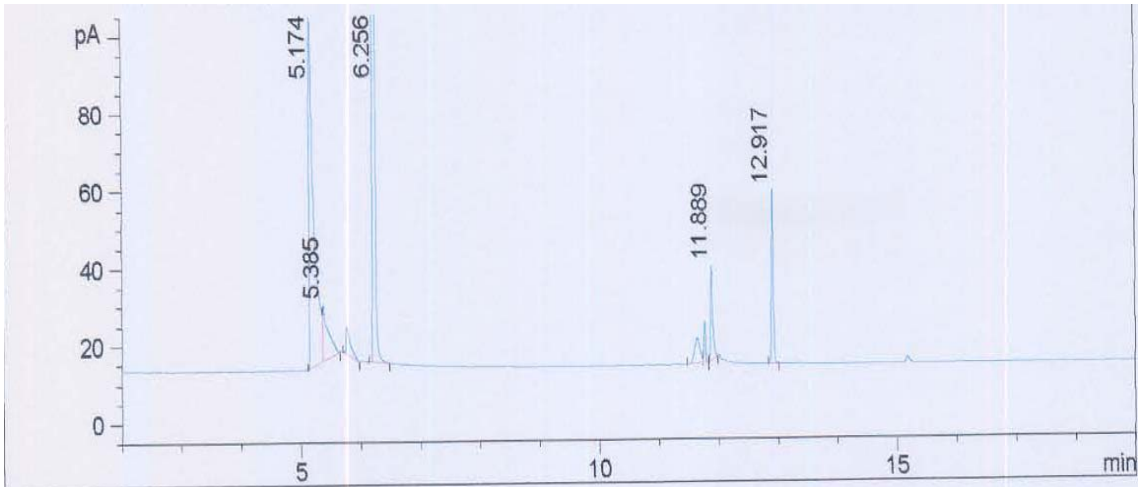
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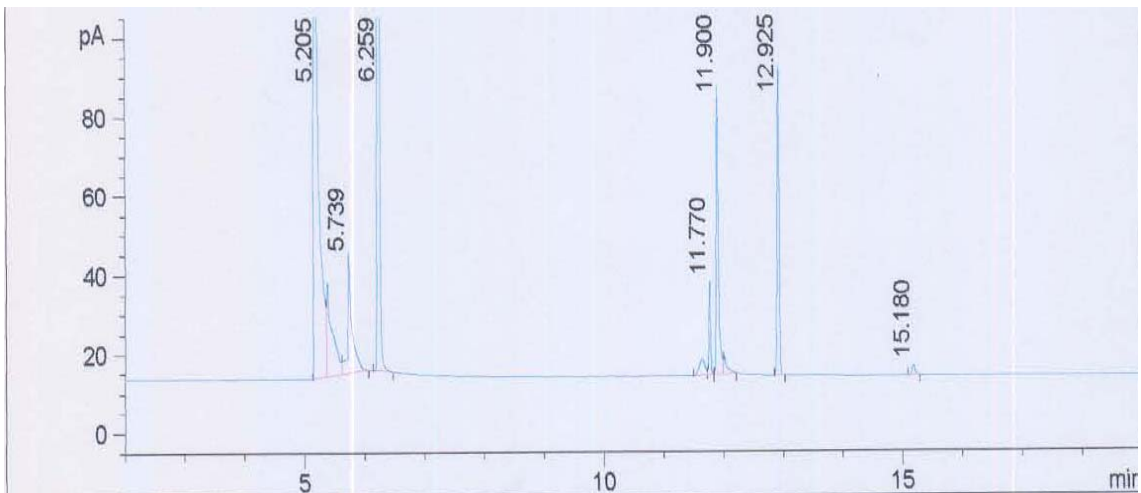
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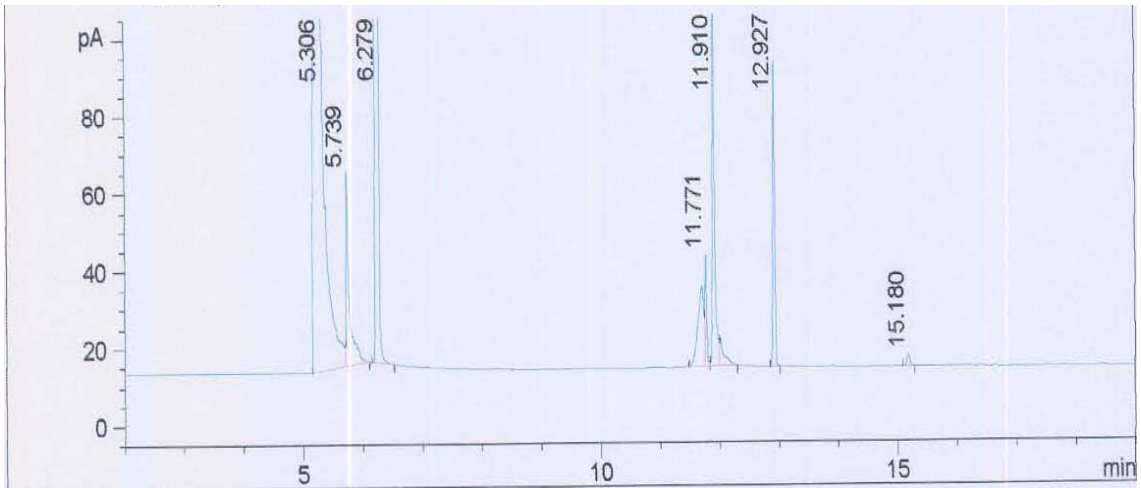
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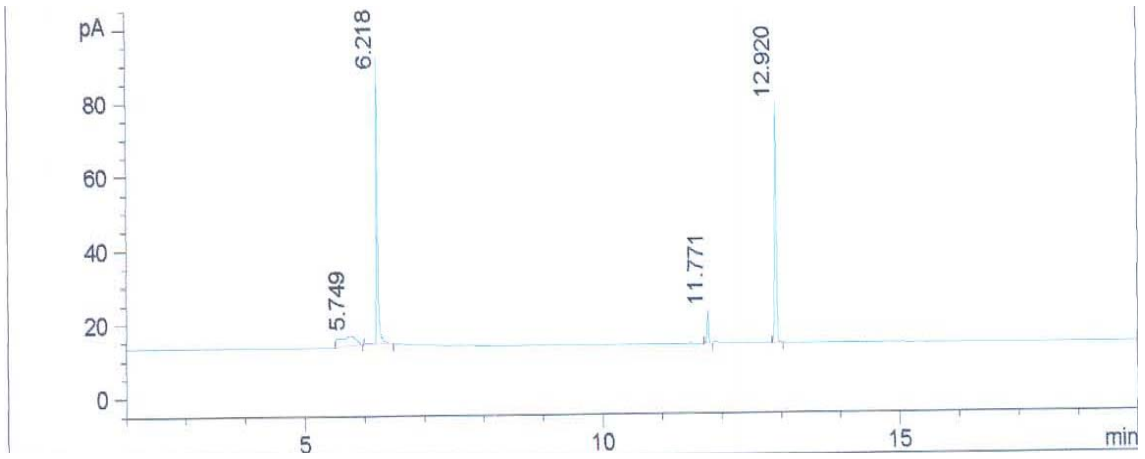


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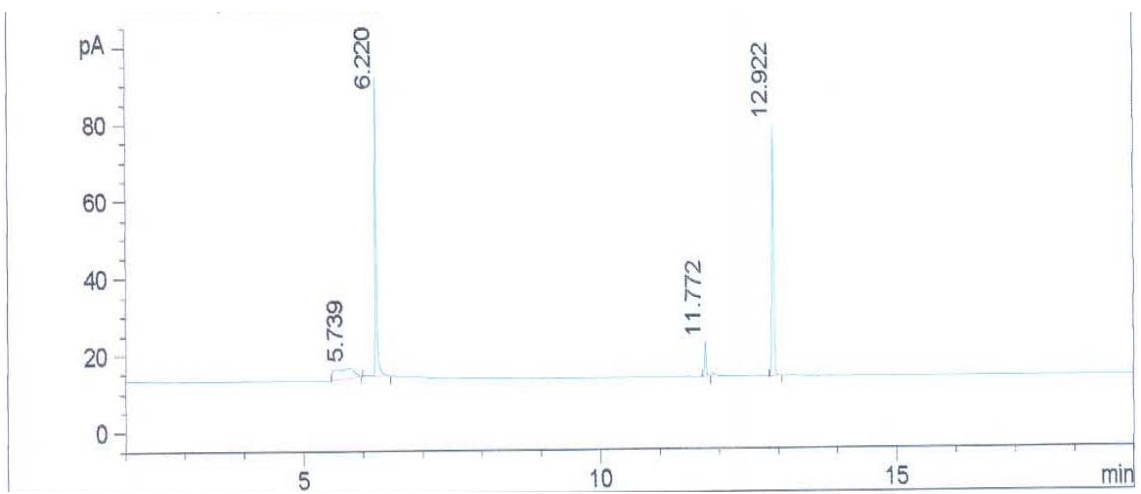


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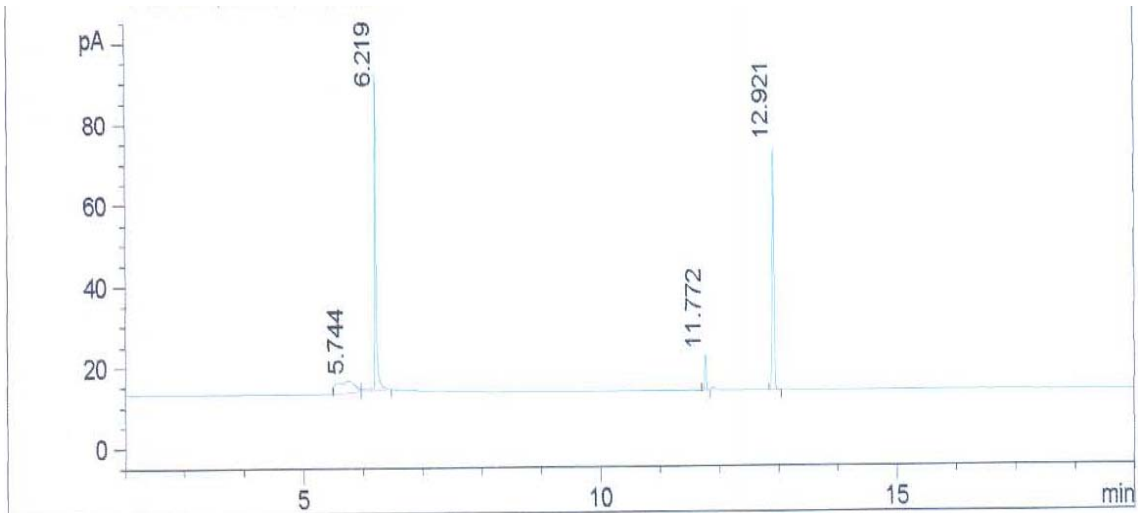
Figura 19A - Cromatogramas das amostras do lote 3



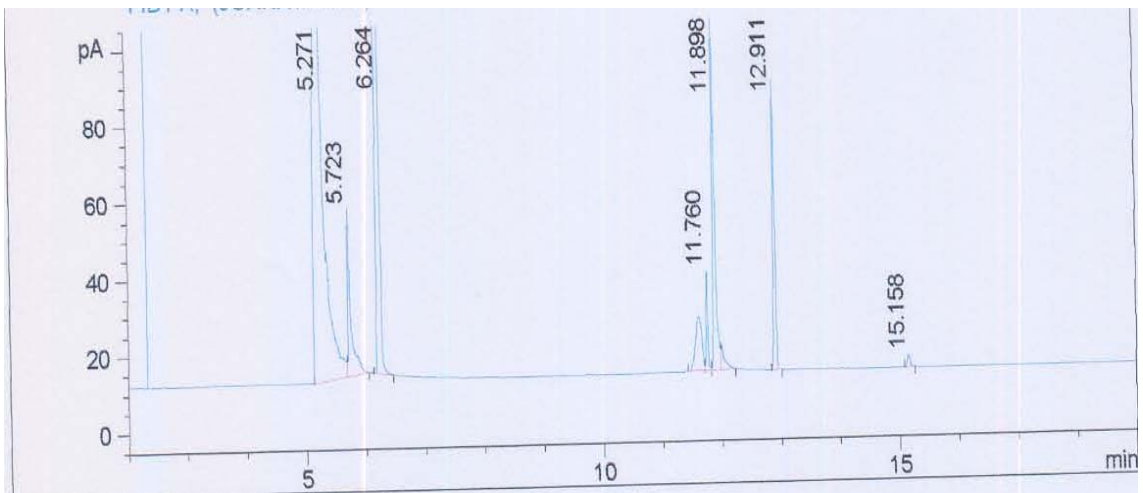
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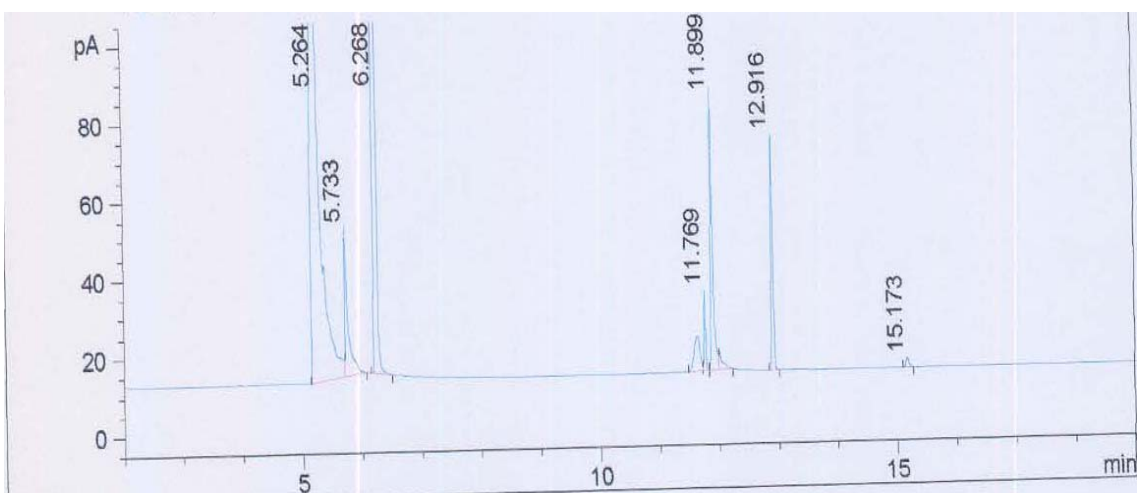
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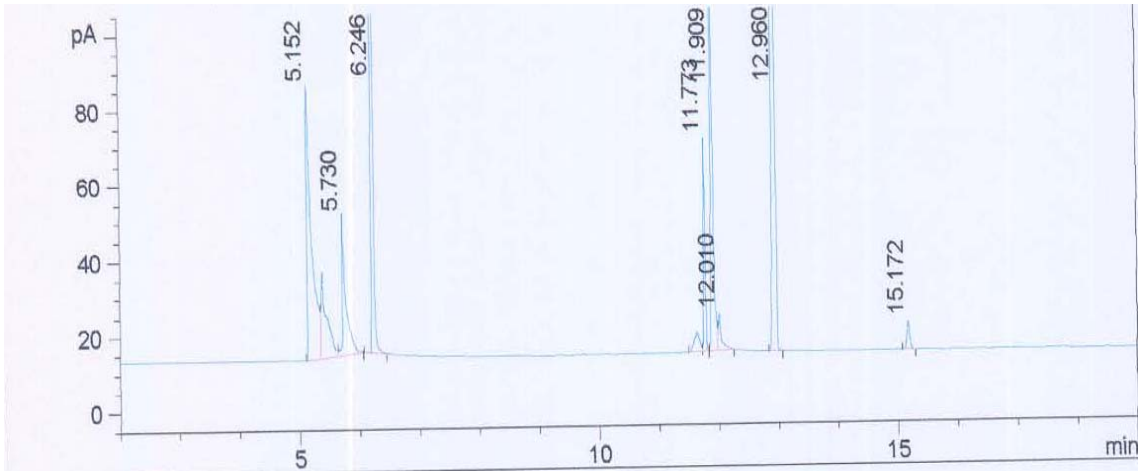
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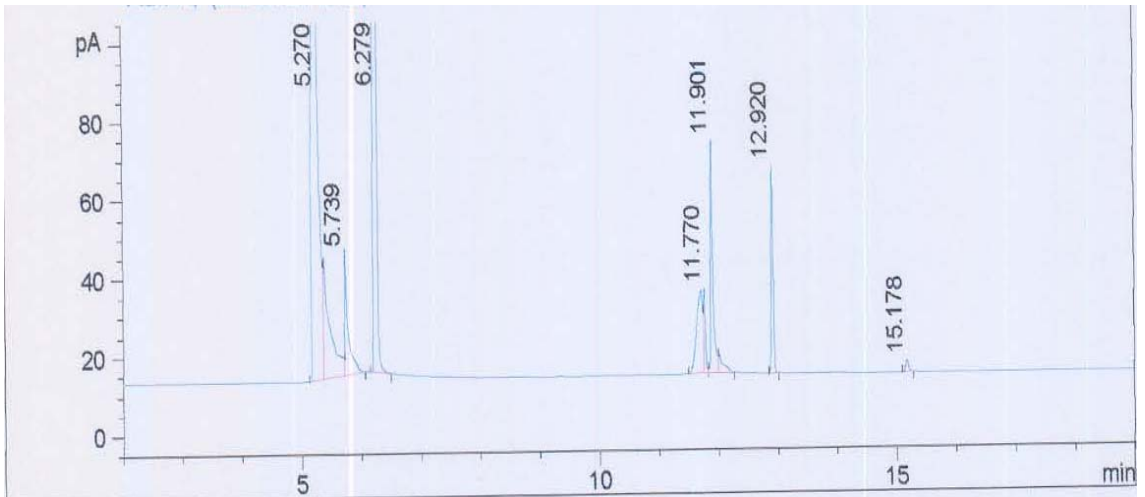
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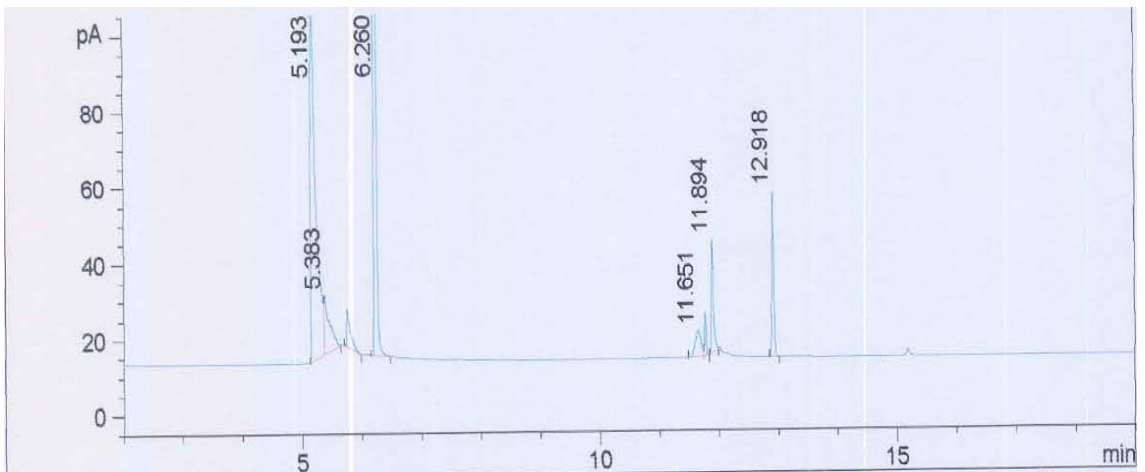
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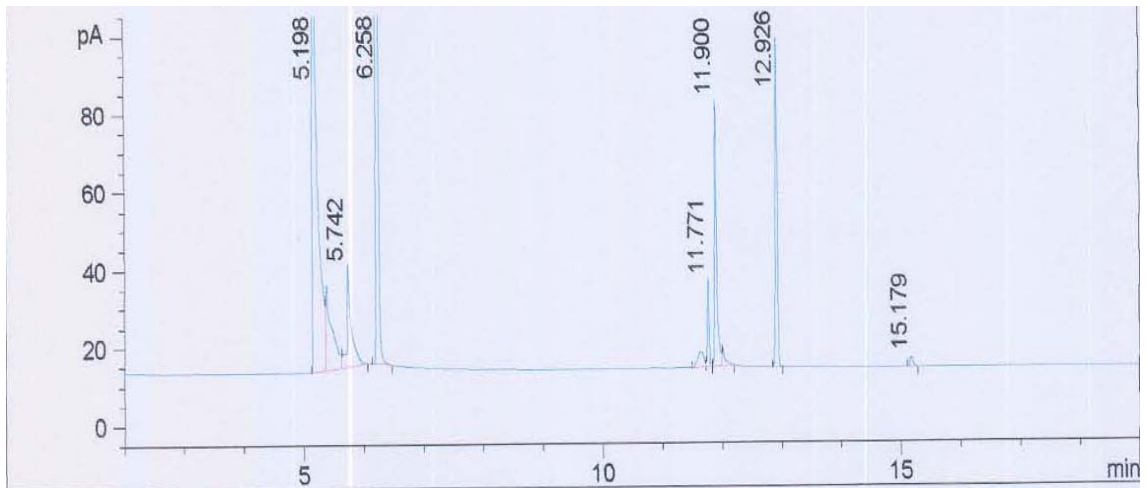
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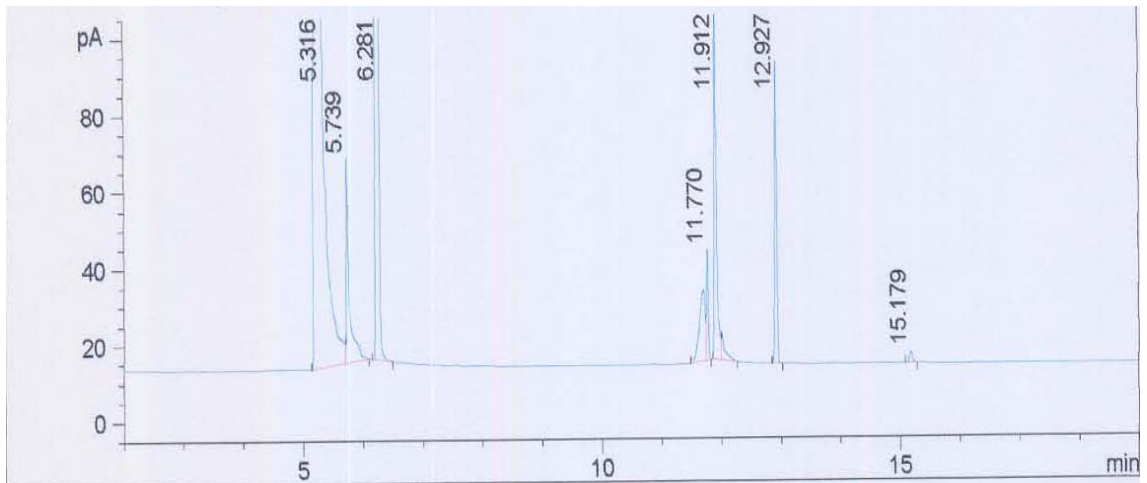
Amostra 7



Amostra 8



Amostra 9



Amostra 10

Figura 20A - Cromatogramas das amostras do lote 4