

Cuadro 64. Datos estadísticos de C86 *G. superba*.

C86 *Govenia superba* (NLS)H#250897-1 México; NL; pared de la barranca acerca del camino; km#-20 W. Coia Caballo; N 25 22.462; W 100 12.066; elevación ca. 1526 m.

#	Células del Haz (Adaxial Cells)						Células del Envés (Abaxial Cells)						Células guardia (Guard Cells)						Células Subsidiarias (Subsidiary Cells)					
	Largo (Lh)		Ancho (Ah)		Área	Indice	Largo (Le)		Ancho (Ac)		Área	Indice	Largo (Lg)		Ancho (Ag)		Área	Largo (La)		Ancho (Aa)		Área		
	Indice	$\mu_m$	Indice	$\mu_m$			Indice	$\mu_m$	Indice	$\mu_m$			Indice	$\mu_m$	Indice	$\mu_m$		Indice	$\mu_m$	Indice	$\mu_m$		Indice	$\mu_m$
1	0.57	61.38	0.73	78.62	4825.77	0.52	56.00	0.60	64.62	3618.46	0.51	54.92	0.39	42.00	2306.77	0.42	45.23	0.18	19.38	876.78				
2	0.54	58.13	0.67	72.15	4196.02	0.58	62.46	0.60	64.62	4085.98	0.46	49.54	0.36	38.77	1920.57	0.40	43.08	0.15	16.15	695.86				
3	0.60	64.62	0.78	84.00	5427.69	0.67	72.15	0.60	64.62	4662.25	0.46	49.54	0.45	48.46	2400.71	0.36	38.77	0.21	22.62	876.78				
4	0.56	60.31	0.80	86.15	5195.74	0.66	71.08	0.55	59.23	4209.94	0.50	53.85	0.45	48.46	2609.47	0.43	46.31	0.20	21.54	997.40				
5	0.50	53.85	0.60	64.62	3479.29	0.50	53.85	0.55	59.23	3189.35	0.48	51.69	0.38	40.92	2115.41	0.41	44.15	0.14	15.08	665.70				
6	0.64	68.92	0.65	70.00	4824.61	0.50	53.85	0.65	70.00	3769.23	0.41	44.15	0.32	34.46	1521.61	0.36	38.77	0.10	10.77	417.51				
7	0.70	75.38	0.65	70.00	5276.92	0.65	70.00	0.46	49.54	3467.69	0.41	44.15	0.39	42.00	1854.46	0.40	43.08	0.10	10.77	463.91				
8	0.69	74.31	0.69	74.31	5521.63	0.50	53.85	0.65	70.00	3769.23	0.45	48.46	0.36	38.77	1878.82	0.36	38.77	0.15	16.15	626.27				
9	0.89	95.85	0.60	64.62	6193.14	0.46	49.54	0.46	49.54	2454.06	0.46	49.54	0.40	43.08	2133.96	0.31	33.38	0.30	32.31	1078.38				
10	0.65	70.00	0.81	87.23	6106.15	0.60	64.62	0.46	49.54	3200.95	0.39	42.00	0.36	38.77	1628.31	0.31	33.38	0.35	37.69	1258.34				
11	0.60	64.62	0.71	76.46	4940.59	0.58	62.46	0.67	72.15	4506.84	0.51	54.92	0.45	48.46	2661.66	0.38	40.92	0.35	37.69	1542.48				
12	0.70	75.38	0.56	60.31	4546.27	0.60	64.62	0.66	71.08	4592.66	0.49	52.77	0.40	43.08	2273.14	0.40	43.08	0.21	22.62	974.20				
13	0.69	74.31	0.60	64.62	4881.42	0.38	40.92	0.42	45.23	1850.98	0.44	47.38	0.35	37.69	1786.04	0.40	43.08	0.26	28.00	1206.15				
14	0.79	83.08	0.66	71.08	6047.01	0.60	64.62	0.55	59.23	3827.22	0.40	43.08	0.35	37.69	1623.67	0.38	40.92	0.26	28.00	1145.85				
15	0.70	75.38	0.62	66.77	5033.37	0.78	84.00	0.60	64.62	5427.69	0.45	48.46	0.33	35.54	1722.25	0.36	38.77	0.24	25.85	1002.04				
16	0.64	68.92	0.64	68.92	4750.39	0.64	68.92	0.38	40.92	2820.54	0.52	56.00	0.36	38.77	2171.08	0.36	38.77	0.34	25.85	1002.04				
17	0.55	59.23	0.60	64.62	3827.22	0.60	64.62	0.36	38.77	2505.09	0.49	52.77	0.40	43.08	2273.14	0.40	43.08	0.25	26.92	1159.76				
18	0.70	75.38	0.60	64.62	4871.01	0.70	75.38	0.35	37.69	2841.42	0.42	45.23	0.35	37.69	1704.85	0.40	43.08	0.20	21.54	927.81				
19	0.48	51.69	0.82	88.31	4564.83	0.70	75.38	0.45	48.46	3653.25	0.48	51.69	0.40	43.08	2226.75	0.40	43.08	0.13	14.00	603.08				
20	0.47	50.62	0.82	88.31	4469.73	0.76	81.85	0.42	45.23	3701.96	0.46	49.54	0.39	42.00	2080.62	0.38	40.92	0.18	19.38	793.28				
21	0.61	65.69	0.66	71.08	4669.21	0.54	58.15	0.40	43.08	2505.09	0.48	51.69	0.38	40.92	2115.41	0.38	40.92	0.15	16.15	661.06				
22	0.60	64.62	0.68	73.23	4731.89	0.56	60.31	0.45	48.46	2922.60	0.40	43.08	0.38	40.92	1762.84	0.40	43.08	0.10	10.77	463.91				
23	0.72	77.54	0.61	65.69	5093.68	0.59	63.54	0.50	53.85	3421.30	0.40	43.08	0.30	32.31	1391.72	0.36	38.77	0.20	21.54	853.03				
24	0.60	64.62	0.60	64.62	4175.15	0.61	65.69	0.50	53.85	3337.28	0.40	43.08	0.39	42.00	1809.25	0.36	38.77	0.21	22.62	876.78				
25	0.70	75.38	0.69	74.31	5601.66	0.45	48.46	0.34	36.62	1774.44	0.40	43.08	0.36	38.77	1670.06	0.42	45.23	0.10	10.77	487.10				
Suma	1711.23		1814.62	123170.33		1586.31	1360.15	86265.50		1213.69	1017.69	49642.50		1027.38		534.15	21637.70							
Promedio	68.45		72.58	4926.81		63.45	54.41	3552.50		48.55	40.71	1807.50		41.10		21.37	865.51							
D.E. (e)	10.42		8.48	664.80		10.33	11.23	878.66		4.46	4.04	333.67		3.29		7.77	282.78							

Promedio del área de las células del haz: 4926.81 micras cuadradas 202.97 células/mm cuadradas  
 Promedio del área de las células del envés: 3450.62 micras cuadradas 289.80 células/mm cuadradas  
 El promedio de las células del haz es 1.43 veces el promedio de las células del envés.  
 El promedio de las células guardia es 1.19 veces el promedio del ancho.  
 El promedio de las células subsidiarias es 1.92 veces el promedio del ancho.

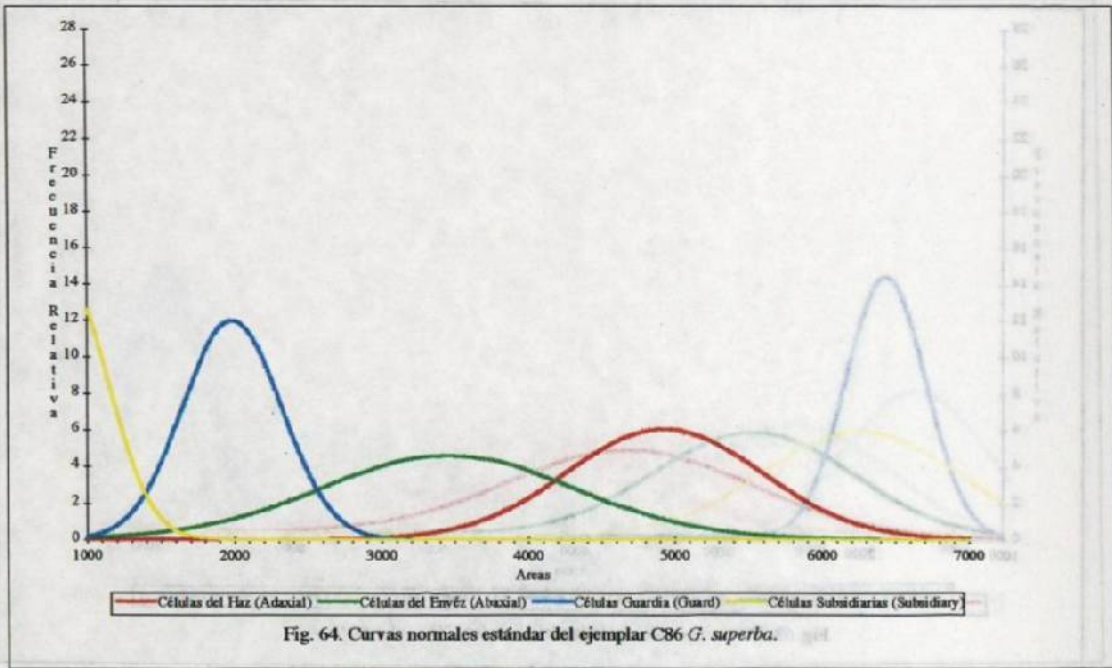


Fig. 64. Curvas normales estándar del ejemplar C86 *G. superba*.

Cuadro 65. Datos estadísticos de C88 *S. maculosa*.

C88 *S. maculosa* (Méx) PI#241097-1 México, Sonora, área de Tepopa!

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Area	Largo (Le)	Ancho (Ae)	Area	Largo (Lg)	Ancho (Ag)	Area	Largo (Ls)	Ancho (As)	Area								
	Indice	$\mu_m$	$\mu_m^2$	Indice	$\mu_m$	$\mu_m^2$	Indice	$\mu_m$	$\mu_m^2$	Indice	$\mu_m$	$\mu_m^2$								
1	0.68	73.23	0.51	54.92	4022.06	0.52	56.00	0.38	40.92	2291.69	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.40	43.08	2319.53
2	0.68	73.23	0.41	44.15	3233.42	0.48	51.69	0.39	42.00	2171.08	0.39	42.00	0.30	32.31	1356.92	0.56	60.31	0.52	56.00	3377.23
3	0.70	75.38	0.51	54.92	4140.35	0.52	56.00	0.32	34.46	1929.85	0.41	44.15	0.30	32.31	1426.51	0.65	70.00	0.21	22.62	1583.08
4	0.55	59.23	0.55	59.23	3508.28	0.70	75.38	0.40	43.08	3247.34	0.40	43.08	0.34	36.62	1577.28	0.59	63.54	0.32	34.46	2189.63
5	0.60	64.62	0.56	60.31	3896.80	0.51	54.92	0.25	26.92	1478.70	0.39	42.00	0.36	38.77	1628.31	0.52	56.00	0.30	32.31	1809.23
6	0.60	64.62	0.56	60.31	3896.80	0.39	42.00	0.40	43.08	1809.23	0.41	44.15	0.32	34.46	1521.61	0.38	40.92	0.37	39.85	1630.43
7	0.62	66.77	0.50	53.85	3595.27	0.35	37.69	0.30	32.31	1217.75	0.40	43.08	0.32	34.46	1484.50	0.56	60.31	0.30	32.31	1948.40
8	0.65	70.00	0.50	53.85	3769.23	0.44	47.38	0.46	49.54	2347.36	0.40	43.08	0.40	43.08	1855.62	0.62	66.77	0.22	23.69	1581.92
9	0.65	70.00	0.42	45.23	3166.15	0.46	49.54	0.35	37.69	1867.22	0.45	48.46	0.37	39.85	1931.01	0.48	51.69	0.30	32.31	1670.06
10	0.75	80.77	0.48	51.69	4175.15	0.50	53.85	0.40	43.08	2319.53	0.45	48.46	0.32	34.46	1670.06	0.42	45.23	0.25	26.92	1217.75
11	0.59	63.54	0.49	52.77	3352.88	0.72	77.54	0.31	33.38	2388.39	0.40	43.08	0.39	42.00	1809.23	0.55	59.23	0.25	26.92	1594.67
12	0.51	54.92	0.49	52.77	2898.25	0.67	72.15	0.30	32.31	2331.12	0.40	43.08	0.39	42.00	1809.23	0.45	48.46	0.30	32.31	1565.68
13	0.64	68.92	0.48	51.69	3562.79	0.65	70.00	0.35	37.69	2638.46	0.44	47.38	0.40	43.08	2041.18	0.60	64.62	0.25	26.92	1739.64
14	0.76	81.85	0.31	33.38	2732.40	0.55	59.23	0.30	32.31	1913.61	0.44	47.38	0.35	37.69	1786.04	0.48	51.69	0.37	39.85	2059.74
15	0.80	86.15	0.31	33.38	2876.21	0.60	64.62	0.30	32.31	2087.57	0.40	43.08	0.35	37.69	1623.67	0.50	53.85	0.29	31.23	1681.66
16	0.73	78.62	0.39	42.00	3301.85	0.35	37.69	0.40	43.08	1623.67	0.44	47.38	0.34	36.62	1733.01	0.50	53.85	0.26	28.00	1507.69
17	0.79	85.08	0.31	33.38	2840.26	0.48	51.69	0.33	35.54	1837.06	0.41	44.15	0.34	36.62	1616.71	0.60	64.62	0.32	34.46	2226.75
18	0.74	79.69	0.30	32.31	2574.67	0.47	50.62	0.33	35.54	1798.79	0.40	43.08	0.38	40.92	1762.84	0.60	64.62	0.30	32.31	2087.57
19	0.68	73.23	0.50	53.85	3943.19	0.62	66.77	0.30	32.31	2157.16	0.40	43.08	0.30	32.31	1391.72	0.45	48.46	0.41	44.15	2139.76
20	0.85	91.54	0.46	49.54	4534.67	0.68	73.23	0.34	36.62	2681.37	0.40	43.08	0.32	34.46	1484.50	0.60	64.62	0.30	32.31	2087.57
21	0.61	65.69	0.45	48.46	3183.55	0.52	56.00	0.31	33.38	1869.54	0.40	43.08	0.32	34.46	1484.50	0.58	62.46	0.31	33.38	2083.25
22	0.65	70.00	0.45	48.46	3392.31	0.52	56.00	0.35	37.69	2110.77	0.36	38.77	0.34	36.62	1419.55	0.60	64.62	0.29	31.23	2017.99
23	0.75	80.77	0.60	64.62	5218.93	0.56	60.31	0.40	43.08	2597.87	0.40	43.08	0.32	34.46	1484.50	0.56	60.31	0.30	32.31	1948.40
24	0.65	70.00	0.44	47.38	3316.92	0.36	38.77	0.35	37.69	1461.30	0.45	48.46	0.35	37.69	1826.63	0.60	64.62	0.36	38.77	2505.09
25	0.64	68.92	0.44	47.38	3265.89	0.45	48.46	0.45	48.46	2348.52	0.44	47.38	0.31	33.38	1581.92	0.55	59.23	0.32	34.46	2041.18
Suma	1816.77		1229.85	88398.31		1407.54		944.46	52725.15		1112.46		924.00	41133.64		1453.85		842.15	48616.11	
Promedio	72.67		49.19	3535.95		56.30		37.78	2159.01		44.50		36.96	1685.48		58.15		33.69	1944.64	
D.E. ( $\sigma$ )	8.78		8.87	605.66		11.58		5.59	452.46		2.61		3.36	184.80		7.43		7.12	434.48	

Promedio del área de las células del haz: 3535.95 micras cuadradas 282.81 células/mm cuadrados  
 Promedio del área de las células del envés: 2109.01 micras cuadradas 474.16 células/mm cuadrados  
 El promedio de las células del haz es 1.68 veces el promedio de las células del envés.  
 El promedio de las células guardia es 1.20 veces el promedio del ancho.  
 La media de las células subsidiarias es 1.73 veces el promedio del ancho.

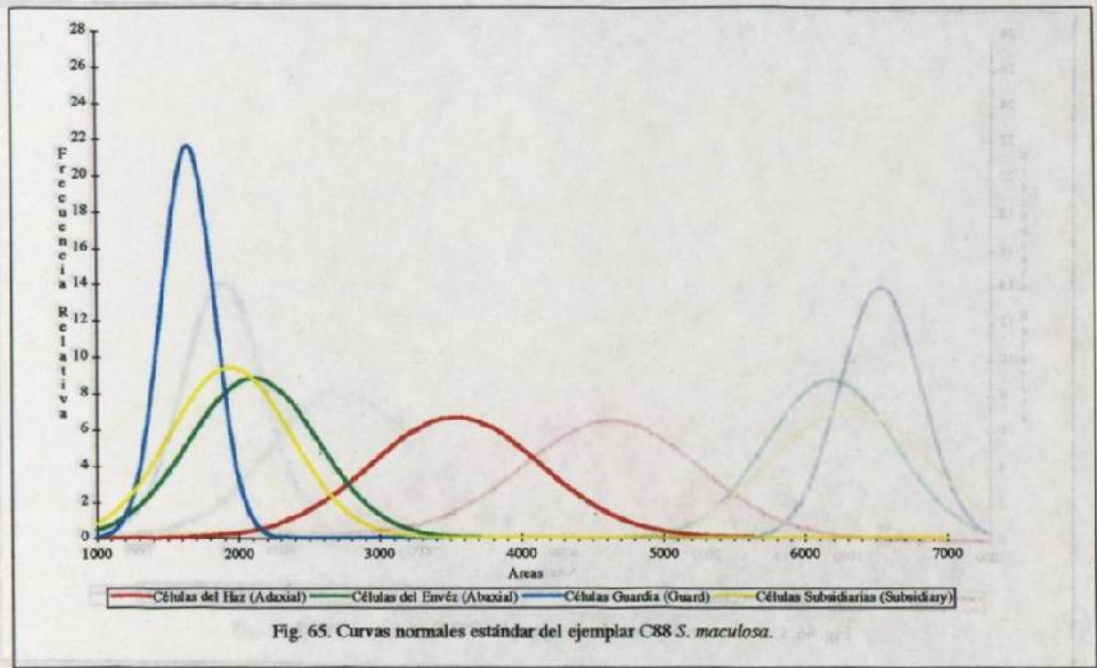


Fig. 65. Curvas normales estándar del ejemplar C88 *S. maculosa*.

Cuadro 66. Datos estadísticos de C93 S. sp. ign. 'Huatusco'

C93 S. sp. ign. 'Huatusco' (Méx) P#010598-1 Méx; Ver; Huatusco; N.19d. 8.458°; W.96d. 57.395°; elev 1200 m (±1100-1200 m; ±33-3600 ft)

#	Células del Haz (Axial Cells)			Células del Envér (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)		Ancho (Ah)	Largo (Le)		Ancho (Ae)	Largo (Lg)		Ancho (Ag)	Largo (Ls)		Ancho (As)		Area						
	Indice	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$						
1	0.70	75.38	0.48	51.69	3896.80	0.50	53.85	0.33	35.54	1913.61	0.48	51.69	0.34	36.62	1892.73	0.46	49.54	0.25	26.92	1333.73
2	0.65	70.00	0.50	53.85	3769.23	0.55	59.23	0.35	37.69	2232.54	0.44	47.38	0.34	36.62	1735.01	0.48	51.69	0.26	28.00	1447.38
3	0.89	95.85	0.48	51.69	4954.51	0.61	65.69	0.30	32.31	2122.37	0.45	48.46	0.38	40.92	1983.19	0.49	52.77	0.18	19.38	1022.91
4	0.66	71.08	0.32	34.46	2449.42	0.49	52.77	0.29	31.23	1648.02	0.40	43.08	0.35	37.69	1623.67	0.48	51.69	0.22	23.69	1224.71
5	0.85	91.54	0.41	44.15	4041.77	0.58	62.46	0.30	32.31	2017.99	0.41	44.15	0.35	37.69	1664.26	0.55	59.23	0.27	29.08	1722.25
6	0.85	91.54	0.45	48.46	4436.09	0.58	62.46	0.24	25.85	1614.39	0.41	44.15	0.35	37.69	1664.26	0.50	53.85	0.28	30.15	1623.67
7	0.86	92.62	0.40	43.08	3989.59	0.52	56.00	0.36	38.77	2171.08	0.40	43.08	0.37	39.85	1716.45	0.50	53.85	0.19	20.46	1101.77
8	0.92	99.08	0.36	38.77	3841.14	0.42	45.23	0.39	42.00	1899.69	0.44	47.38	0.38	40.92	1939.12	0.50	53.85	0.30	32.31	1739.64
9	0.66	71.08	0.50	53.85	3827.22	0.58	62.46	0.40	43.08	2690.65	0.50	53.85	0.35	37.69	2029.59	0.56	60.31	0.38	40.92	2467.98
10	0.68	73.23	0.54	58.15	4258.65	0.32	34.46	0.33	35.54	1224.71	0.50	53.85	0.38	40.92	2203.55	0.67	72.15	0.40	43.08	3108.17
11	0.61	65.69	0.49	52.77	3466.53	0.42	45.23	0.35	37.69	1704.85	0.46	49.54	0.35	37.69	1867.22	0.41	44.15	0.30	32.31	1426.51
12	0.60	64.62	0.40	43.08	2783.43	0.51	54.92	0.31	33.38	1833.59	0.46	49.54	0.40	43.08	2133.96	0.49	52.77	0.40	43.08	2273.14
13	0.59	63.54	0.40	43.08	2737.04	0.42	45.23	0.40	43.08	1948.40	0.44	47.38	0.41	44.15	2092.21	0.70	75.38	0.32	34.46	2597.87
14	0.78	84.00	0.39	42.00	3528.00	0.42	45.23	0.38	40.92	1850.98	0.50	53.85	0.39	42.00	2261.54	0.45	48.46	0.45	48.46	2348.52
15	0.75	80.77	0.42	45.23	3653.25	0.55	59.23	0.48	51.69	3061.77	0.41	44.15	0.30	32.31	1426.51	0.58	62.46	0.25	26.92	1681.66
16	0.75	80.77	0.40	43.08	3479.29	0.58	62.46	0.44	47.38	2959.72	0.40	43.08	0.30	32.31	1391.72	0.41	44.15	0.48	51.69	2282.41
17	0.69	74.31	0.40	43.08	3200.95	0.54	58.15	0.35	37.69	2191.95	0.49	52.77	0.39	42.00	2216.31	0.50	53.85	0.49	52.77	2841.42
18	0.86	92.62	0.40	43.08	3989.59	0.50	53.85	0.40	43.08	2319.53	0.40	43.08	0.34	36.62	1577.28	0.50	53.85	0.39	42.00	2261.54
19	0.60	64.62	0.42	45.23	2922.60	0.77	82.92	0.30	32.31	2679.05	0.40	43.08	0.33	35.54	1530.89	0.50	53.85	0.35	37.69	2029.59
20	0.80	86.15	0.54	58.15	5010.18	0.60	64.62	0.25	26.92	1739.64	0.46	49.54	0.37	39.85	1973.92	0.57	61.38	0.37	39.85	2445.94
21	0.81	87.23	0.39	42.00	3463.69	0.80	86.15	0.31	33.38	2876.21	0.41	44.15	0.35	37.69	1664.26	0.46	49.54	0.34	36.62	1813.87
22	0.70	75.38	0.38	40.92	3084.97	0.55	59.23	0.35	37.69	2232.54	0.41	44.15	0.35	37.69	1664.26	0.56	60.31	0.35	37.69	2273.14
23	0.77	82.92	0.38	40.92	3393.47	0.51	54.92	0.30	32.31	1774.44	0.34	36.62	0.32	34.46	1261.82	0.56	60.31	0.35	37.69	2273.14
24	0.80	86.15	0.38	40.92	3525.68	0.55	59.23	0.35	37.69	2232.54	0.40	43.08	0.30	32.31	1391.72	0.50	53.85	0.30	32.31	1739.64
25	0.70	75.38	0.46	49.54	3734.44	0.59	63.54	0.31	33.38	2121.21	0.40	43.08	0.32	34.46	1484.50	0.59	63.54	0.38	40.92	2600.19
Suma	1995.54		1151.23	91637.53		1449.54		922.92	53061.48		1164.15		948.77	44389.93		1396.77		888.46	49680.77	
Promedio	79.82		46.05	3665.50		57.98		36.92	2122.46		46.57		37.95	1775.96		55.87		35.54	1987.23	
D.E. ( $\sigma$ )	10.61		6.12	622.61		11.04		6.02	451.36		4.42		3.31	287.25		7.48		8.92	538.75	

Promedio del área de las células del haz: 3665.50 micras cuadradas 272.81 células/mm cuadrados  
 Promedio del área de las células del envér: 2122.46 micras cuadradas 471.15 células/mm cuadrados  
 El promedio de las células del haz es 1.73 veces el promedio de las células del envér.  
 El promedio de las células guardia es 1.23 veces el promedio del ancho.  
 El promedio de las células subsidiarias es 1.57 veces el promedio del ancho.

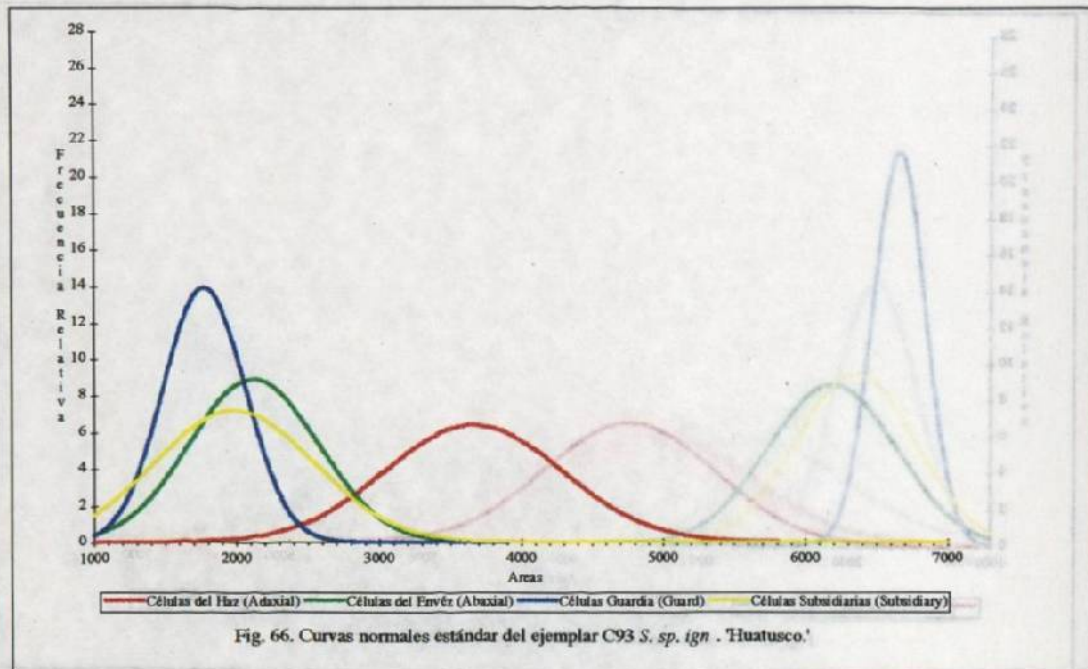


Fig. 66. Curvas normales estándar del ejemplar C93 S. sp. ign. 'Huatusco.'

Cuadro 67. Datos estadísticos de C94 *S. tigrina* '331 ER.'

C94 *S. tigrina* '331 ER.' P1F020598-1 Méx. Ver; Orizabal elev. 1300-1400 m (539-4200 ft); planta con 1 inf de 2 fls 220798; identificación confirmada; fotografiada.

#	Células del Haz (Adaxial Cells)					Células del Envés (Abaxial Cells)					Células Guardia (Guard Cells)					Células Subsidiarias (Subsidiary Cells)				
	Largo (Lh)		Ancho (Ah)		Área	Largo (Le)		Ancho (Ae)		Área	Largo (Lg)		Ancho (Ag)		Área	Largo (Ls)		Ancho (As)		Área
	Indice	$\mu_m$	Indice	$\mu_m$	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	$\mu_m$	Indice	$\mu_m$	Indice	$\mu_m$	$\mu_m$
1	0.75	80.77	0.52	56.00	4523.08	0.63	67.85	0.46	49.54	3360.99	0.42	45.23	0.30	32.31	1461.30	0.60	64.62	0.25	26.92	1759.64
2	0.86	92.62	0.50	53.85	4986.98	0.42	45.23	0.40	43.08	1948.40	0.48	51.69	0.31	33.38	1725.73	0.54	58.15	0.20	21.54	1252.54
3	0.88	94.77	0.50	53.85	5102.96	0.60	64.62	0.35	37.69	2435.50	0.48	51.69	0.37	39.85	2059.74	0.41	44.15	0.22	23.69	1046.11
4	0.88	94.77	0.43	46.31	4388.54	0.55	59.23	0.38	40.92	2423.90	0.46	49.54	0.40	43.08	2133.96	0.50	53.85	0.19	20.46	1101.77
5	0.81	87.23	0.60	64.62	5636.45	0.60	64.62	0.30	32.31	2087.57	0.50	53.85	0.37	39.85	2145.96	0.60	64.62	0.18	19.38	1252.54
6	0.96	103.38	0.42	45.23	4676.17	0.50	53.85	0.40	43.08	2319.53	0.49	52.77	0.40	43.08	2273.14	0.55	59.23	0.25	26.92	1594.67
7	0.66	71.08	0.42	45.23	3214.86	0.52	56.00	0.35	37.69	2110.77	0.48	51.69	0.36	38.77	2004.07	0.72	77.54	0.28	30.15	2338.08
8	0.64	68.92	0.51	54.92	3785.47	0.66	71.08	0.38	40.92	2908.69	0.48	51.69	0.40	43.08	2226.75	0.48	51.69	0.29	31.23	1614.39
9	0.78	84.00	0.39	42.00	3528.00	0.56	60.31	0.33	35.54	2143.24	0.46	49.54	0.38	40.92	2027.27	0.45	48.46	0.23	24.77	1200.35
10	0.71	76.46	0.44	47.38	3623.10	0.60	64.62	0.37	39.85	2574.67	0.46	49.54	0.38	40.92	2027.27	0.60	64.62	0.21	22.62	1461.30
11	0.81	87.23	0.44	47.38	4133.40	0.60	64.62	0.38	40.92	2644.26	0.46	49.54	0.31	33.38	1633.82	0.47	50.62	0.19	20.46	1035.67
12	0.80	86.15	0.50	53.85	4639.05	0.75	80.77	0.40	43.08	3479.29	0.49	52.77	0.35	37.69	1988.99	0.57	61.38	0.40	43.08	2644.26
13	0.85	91.54	0.42	45.23	4140.35	0.56	60.31	0.38	40.92	2467.98	0.46	49.54	0.37	39.85	1973.92	0.58	62.46	0.25	26.92	1681.66
14	0.60	64.62	0.42	45.23	2922.60	0.75	80.77	0.42	45.23	3653.25	0.48	51.69	0.37	39.85	2059.74	0.50	53.85	0.20	21.54	1159.76
15	0.90	96.92	0.41	44.15	4279.53	0.51	54.92	0.41	44.15	2425.06	0.48	51.69	0.41	44.15	2282.41	0.51	54.92	0.22	23.69	1301.25
16	0.81	87.23	0.46	49.54	4321.28	0.70	75.38	0.39	42.00	3166.15	0.48	51.69	0.41	44.15	2282.41	0.50	53.85	0.21	22.62	1217.75
17	0.60	64.62	0.49	52.77	3409.70	0.65	70.00	0.45	48.46	3392.31	0.49	52.77	0.32	34.46	1818.51	0.40	43.08	0.25	26.92	1159.76
18	0.69	74.31	0.50	53.85	4001.18	0.62	66.77	0.40	43.08	2876.21	0.42	45.23	0.32	34.46	1558.72	0.50	53.85	0.20	21.54	1159.76
19	0.80	86.15	0.42	45.23	3896.80	0.64	68.92	0.39	42.00	2894.77	0.42	45.23	0.33	35.54	1607.43	0.50	53.85	0.36	38.77	2087.57
20	0.88	94.77	0.47	50.62	4796.78	0.76	81.85	0.29	31.23	2556.12	0.42	45.23	0.32	34.46	1558.72	0.41	44.15	0.23	24.77	1093.66
21	0.60	64.62	0.46	49.54	3200.95	0.69	74.31	0.42	45.23	3360.99	0.45	48.46	0.35	37.69	1826.63	0.50	53.85	0.49	52.77	2841.42
22	0.89	95.85	0.45	48.46	4644.85	0.55	59.23	0.40	43.08	2551.48	0.50	53.85	0.40	43.08	2319.53	0.41	44.15	0.25	26.92	1188.76
23	0.78	84.00	0.42	45.23	3799.38	0.65	70.00	0.45	48.46	3392.31	0.49	52.77	0.40	43.08	2273.14	0.49	52.77	0.34	36.62	1932.17
24	0.83	91.54	0.50	53.85	4928.99	0.62	66.77	0.44	47.38	3163.83	0.37	39.85	0.32	34.46	1373.16	0.49	52.77	0.40	43.08	2273.14
25	0.80	86.15	0.50	53.85	4639.05	0.59	63.54	0.48	51.69	3284.45	0.42	45.23	0.35	37.69	1704.85	0.40	43.08	0.28	30.15	1298.93
Suma	2109.69		1248.15	105219.51		1645.54		1057.54	69621.74		1242.77		969.23	48366.76		1365.54		707.54	38676.94	
Promedio	84.39		49.93	4208.78		65.82		42.30	2797.55		49.71		38.77	1994.67		54.62		28.30	1547.08	
D.E. (e)	11.07		5.14	671.94		8.87		4.96	505.55		3.53		3.83	286.94		8.25		8.44	522.84	

Promedio del área de las células del haz: 4208.78 micras cuadradas 257.60 células/mm cuadrados  
 Promedio del área de las células del envés: 2784.87 micras cuadradas 359.08 células/mm cuadrados  
 El promedio de las células del haz es 1.51 veces el promedio de las células del envés.  
 El promedio de las células guardia es 1.28 veces el promedio del ancho.  
 El promedio de las células subsidiarias es 1.93 veces el promedio del ancho.

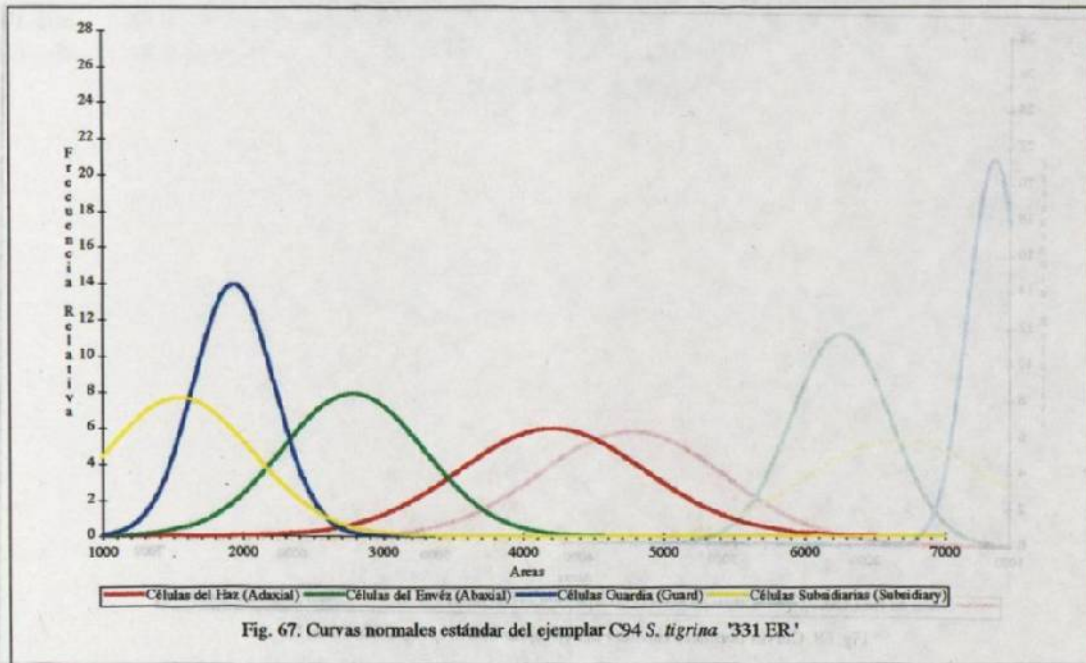


Fig. 67. Curvas normales estándar del ejemplar C94 *S. tigrina* '331 ER.'

Cuadro 68. Datos estadísticos de C98 S. sp. ign. 'Huatusco II.'

C98 S. sp. ign. 'Huatusco II' P19/249798-1 Méx. Ver, Huatusco; N.19d 08.458; W.96d 57.395, elev 1200 m (s.33-3600 ft); planta con 1 inf 240798; fotografiada

#	Células del Haz (Adaxial Cells)			Células del Envés (Abaxial Cells)			Células Guardia (Guard Cells)			Células Subsidiarias (Subsidiary Cells)										
	Largo (Lh)	Ancho (Ah)	Area	Largo (Le)	Ancho (Ae)	Area	Largo (Lg)	Ancho (Ag)	Area	Largo (La)	Ancho (Aa)	Area								
	Indice	$\mu m$	$\mu m^2$	Indice	$\mu m$	$\mu m^2$	Indice	$\mu m$	$\mu m^2$	Indice	$\mu m$	$\mu m^2$								
1	0.75	80.77	0.51	54.92	4436.09	0.52	56.00	0.40	43.08	2412.31	0.42	45.23	0.28	30.15	1363.88	0.36	38.77	0.49	52.77	2045.82
2	0.65	70.00	0.50	33.85	3769.23	0.49	52.77	0.37	39.85	2102.65	0.41	44.15	0.28	30.15	1331.41	0.39	42.00	0.26	28.00	1176.00
3	0.61	65.69	0.46	49.54	3254.30	0.56	60.31	0.42	45.23	2727.76	0.38	40.92	0.30	32.31	1322.13	0.40	43.08	0.22	23.69	1020.59
4	0.70	75.38	0.39	42.00	3166.15	0.61	65.69	0.37	39.85	2617.59	0.31	33.38	0.26	28.00	934.77	0.34	36.62	0.20	21.54	788.64
5	0.81	87.23	0.41	44.15	3851.57	0.59	63.54	0.38	40.92	2600.19	0.30	32.31	0.30	32.31	1043.79	0.47	50.62	0.47	50.62	2561.92
6	0.86	92.62	0.46	49.54	4588.02	0.50	53.85	0.41	44.15	2377.51	0.38	40.92	0.21	22.62	925.49	0.30	32.31	0.42	45.23	1461.30
7	0.60	64.62	0.46	49.54	3200.95	0.50	53.85	0.40	43.08	2319.53	0.32	34.46	0.26	28.00	964.92	0.52	56.00	0.40	43.08	2412.31
8	0.85	91.54	0.46	49.54	4234.67	0.46	49.54	0.31	33.38	1653.82	0.33	35.54	0.23	24.77	880.26	0.56	60.31	0.41	44.15	2662.82
9	0.76	81.85	0.50	53.85	4407.10	0.52	56.00	0.40	43.08	2412.31	0.33	35.54	0.30	32.31	1148.17	0.22	23.69	0.40	43.08	1020.59
10	0.86	92.62	0.38	40.92	3790.11	0.52	56.00	0.40	43.08	2412.31	0.33	35.54	0.27	29.08	1033.35	0.38	40.92	0.22	23.69	969.56
11	0.79	85.08	0.42	45.23	3848.09	0.40	43.08	0.31	33.38	1438.11	0.25	26.92	0.20	21.54	579.88	0.23	24.77	0.40	43.08	1066.98
12	0.55	59.23	0.40	43.08	2551.48	0.44	47.38	0.36	38.77	1837.06	0.39	42.00	0.26	28.00	1176.00	0.28	30.15	0.45	48.46	1461.30
13	0.80	86.15	0.40	43.08	3711.24	0.51	54.92	0.36	38.77	2129.33	0.39	42.00	0.28	30.15	1266.46	0.28	30.15	0.40	43.08	1298.93
14	0.60	64.62	0.34	36.62	2365.92	0.51	54.92	0.33	35.54	1951.88	0.37	39.85	0.30	32.31	1287.34	0.58	62.46	0.50	53.85	3363.31
15	0.60	64.62	0.38	40.92	2644.26	0.47	50.62	0.41	44.15	2234.86	0.35	37.69	0.30	32.31	1217.75	0.28	30.15	0.50	53.85	1623.67
16	0.78	84.00	0.40	43.08	3618.46	0.57	61.38	0.37	39.85	2445.94	0.37	39.85	0.23	24.77	986.96	0.29	31.23	0.36	38.77	1210.79
17	0.77	82.92	0.41	44.15	3661.37	0.50	53.85	0.35	37.69	2029.59	0.36	38.77	0.25	26.92	1043.79	0.30	32.31	0.45	48.46	1565.68
18	0.82	88.31	0.35	37.69	3328.52	0.57	61.38	0.37	39.85	2445.94	0.40	43.08	0.26	28.00	1206.15	0.32	34.46	0.40	43.08	1484.50
19	0.53	57.08	0.40	43.08	2458.70	0.58	62.46	0.30	32.31	2017.99	0.36	38.77	0.30	32.31	1252.54	0.30	32.31	0.40	43.08	1391.72
20	0.60	64.62	0.47	50.62	3270.33	0.47	50.62	0.28	30.15	1526.25	0.40	43.08	0.22	23.69	1020.59	0.30	32.31	0.40	43.08	1391.72
21	0.72	77.54	0.50	53.85	4175.15	0.50	53.85	0.31	33.38	1797.63	0.40	43.08	0.28	30.15	1298.93	0.50	53.85	0.45	48.46	2609.47
22	0.80	86.15	0.41	44.15	3804.02	0.60	64.62	0.30	32.31	2087.57	0.39	42.00	0.28	30.15	1266.46	0.51	54.92	0.41	44.15	2425.06
23	0.85	91.54	0.41	44.15	4041.77	0.50	53.85	0.41	44.15	2377.51	0.34	36.62	0.25	26.92	985.80	0.41	44.15	0.50	53.85	2377.51
24	0.80	86.15	0.40	43.08	3711.24	0.59	63.54	0.36	38.77	2463.34	0.35	37.69	0.24	25.85	974.20	0.53	57.08	0.40	43.08	2458.70
25	0.92	99.08	0.42	45.23	4481.32	0.52	56.00	0.33	35.54	1990.15	0.38	40.92	0.29	31.23	1278.06	0.39	42.00	0.50	53.85	2261.54
Suma	1979.38		1145.85	90670.28		1400.00		970.31	54409.13		970.31		714.00	27789.08		1016.62		1078.00	44110.43	
Promedio	79.18		45.83	3626.81		56.00		38.81	2176.37		38.81		28.56	1111.56		40.66		43.12	1764.42	
D.E. ( $\sigma$ )	12.00		5.07	652.96		5.69		4.47	343.05		4.29		3.26	187.19		11.48		9.51	689.19	

Promedio del área de las células del haz: 3626.81

micras cuadradas 275.72 células/mm cuadrados

Promedio del área de las células del envés: 2176.37

micras cuadradas 459.48 células/mm cuadrados

El promedio de las células del haz es

1.67 veces el promedio de las células del envés.

El promedio de las células guardia es

1.36 veces el promedio del ancho.

El promedio de las células subsidiarias es

0.94 veces el promedio del ancho.

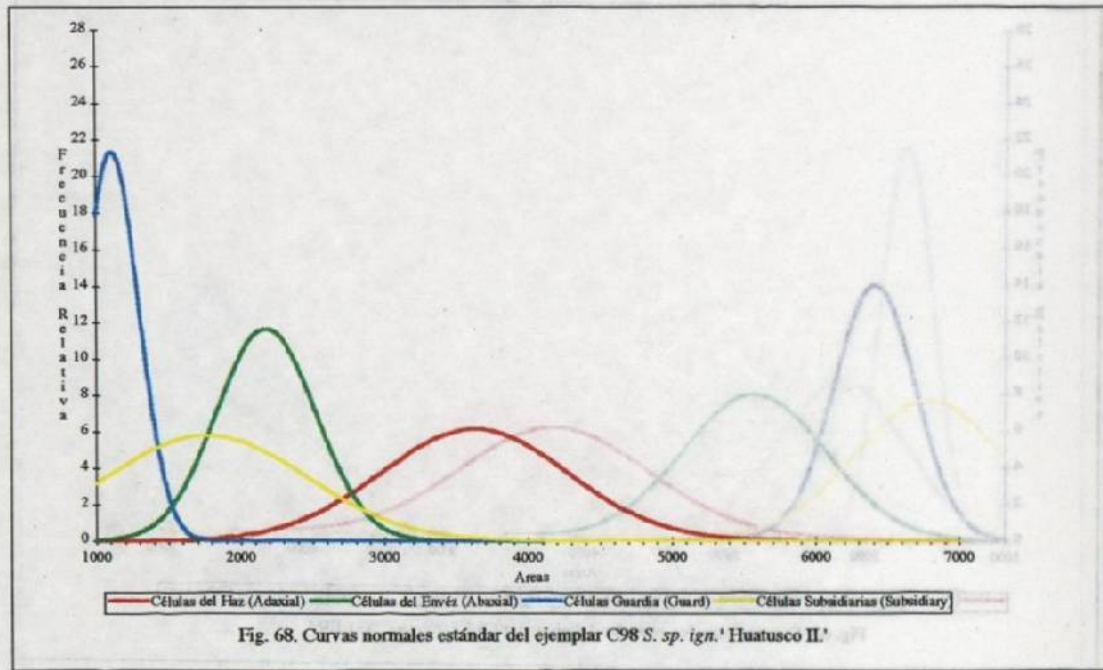


Fig. 68. Curvas normales estándar del ejemplar C98 S. sp. ign. 'Huatusco II.'

## **Anexo II**

### **Curvas Normales Estándar de Combinaciones**

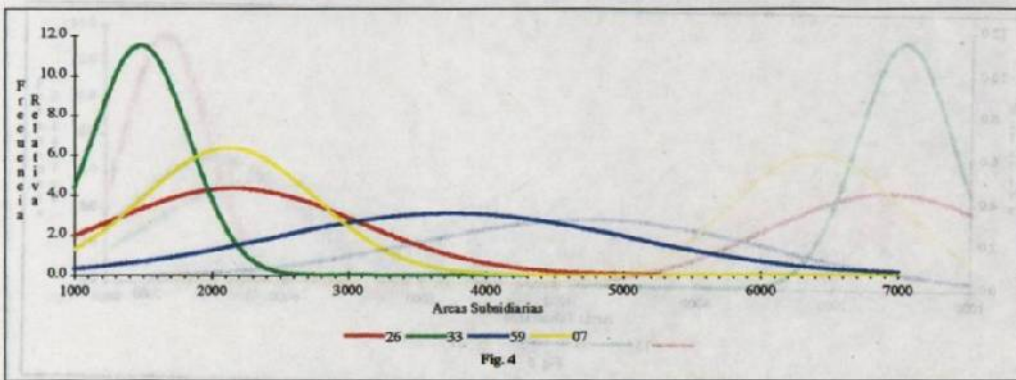
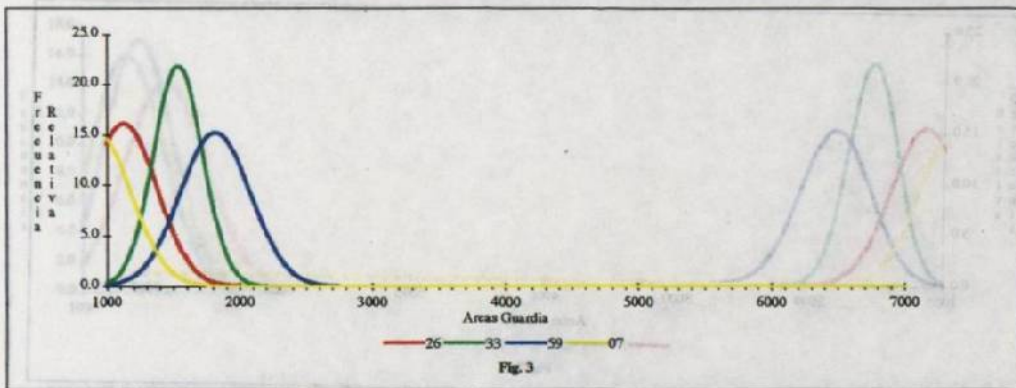
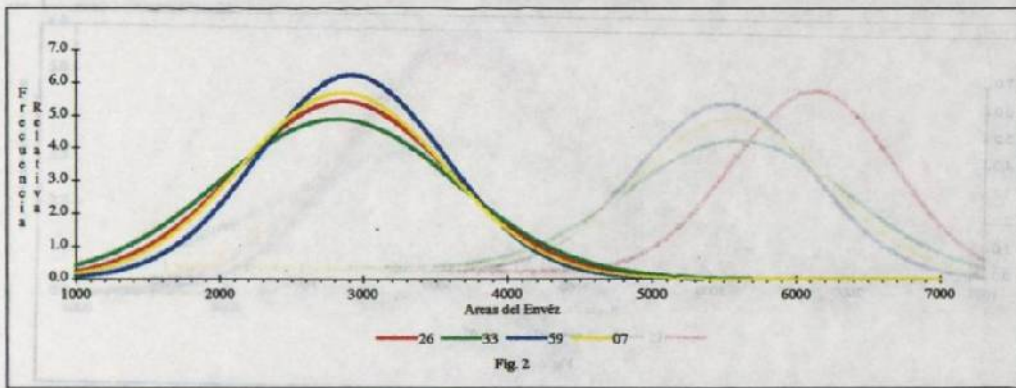
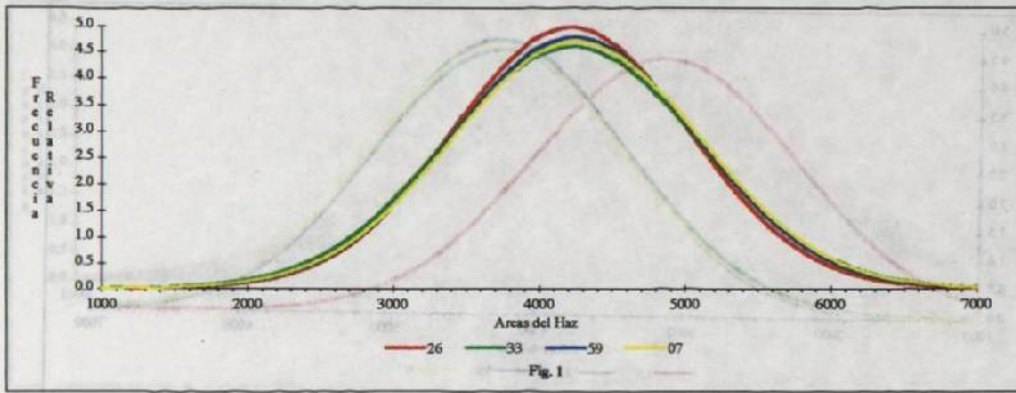
(Normal Standard Curves of Combinations)

A II - 1 — A II - 27

INDICE DE COMBINACIONES DE LAS CURVAS NORMALES ESTANDAR  
(Index of Combinations of Normal Standard Curves)

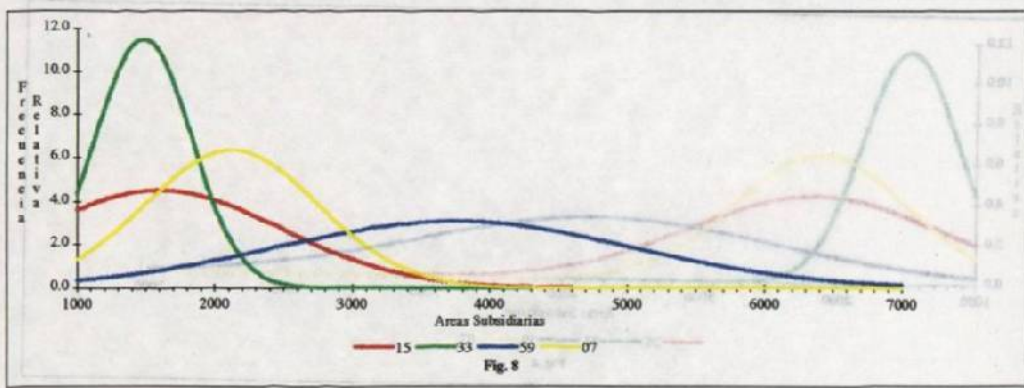
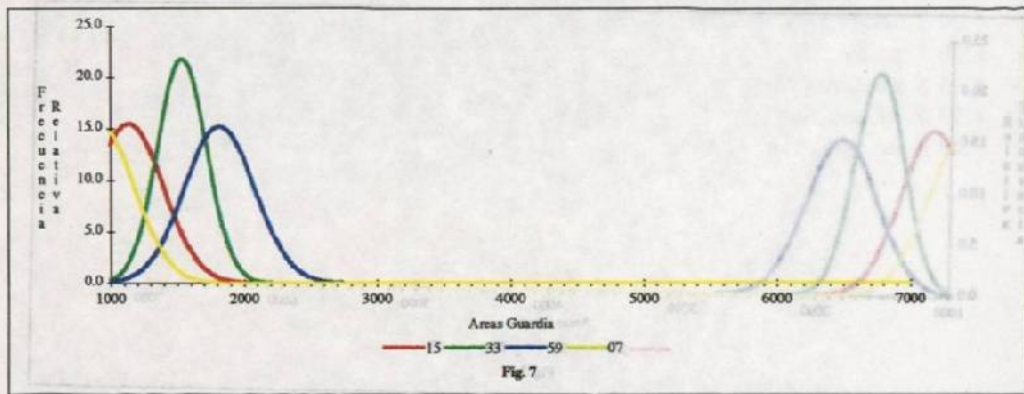
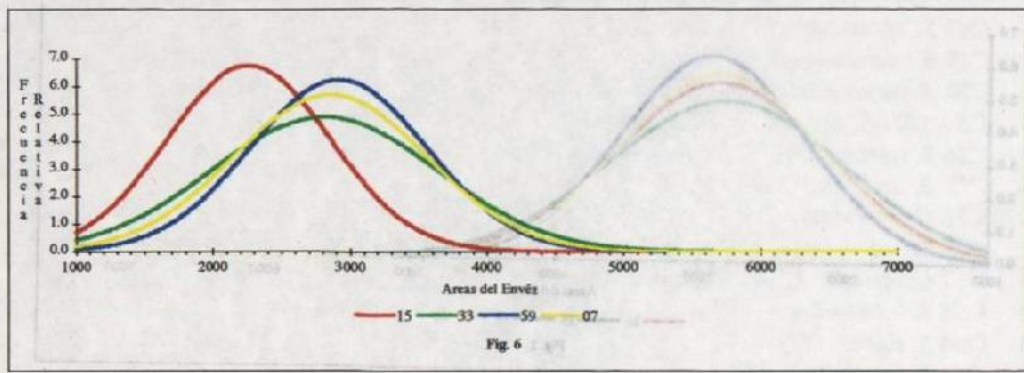
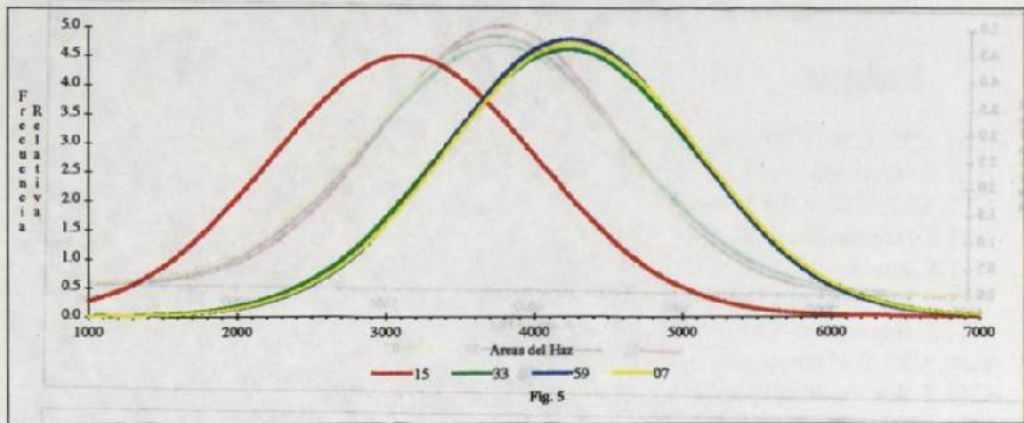
<u>Figuras</u>	<u>Emplejares</u>	<u>Página</u>
1 - 4	C26, C33, C59, C07 <i>S. tigrina</i>	A II - 1
5 - 8	C15 <i>S. nigroviolacea</i> ; C33, C59, C07 <i>S. tigrina</i>	A II - 2
9-12	C13, C12, C62, C14 <i>S. wardii</i>	A II - 3
13-16	C51 <i>S. intermedia</i> ; C09, C08, C64 <i>S. graveolens</i>	A II - 4
17-20	C51 <i>S. intermedia</i> ; C02, C45, C01 <i>S. saccata</i>	A II - 5
21-24	C51 <i>S. intermedia</i> ; C04, C49, C53 <i>S. hernandezii</i>	A II - 6
25-28	C51 <i>S. intermedia</i> ; C06, C77, C05 <i>S. oculata</i>	A II - 7
29-32	C66, C22 <i>S. eburnea</i> ; C25, C67 <i>S. grandiflora</i>	A II - 8
33-36	C51 <i>S. intermedia</i> ; C05, C06 <i>S. oculata</i> ; C21 <i>S. reichenbachiana</i>	A II - 9
37-40	C02, C45, C01 <i>S. saccata</i> ; C69 <i>S. radiosa</i>	A II - 10
41-44	C83 <i>S. cf. amoena</i> ; C13, C12, C14 <i>S. wardii</i>	A II - 11
45-48	C17 <i>S. costaricensis</i> ; C83 <i>S. cf. amoena</i> ; C58 <i>S. panamensis</i> ; C23 <i>S. ecornuta</i>	A II - 12
49-52	C58 <i>S. panamensis</i> ; C56 <i>S. Chocolate Chips 'Lindt'</i> ; C59, C07 <i>S. tigrina</i>	A II - 13
53-56	C59, C07 <i>S. tigrina</i> ; C60 <i>S. Love Potion 'No. 9'</i> ; C28 <i>S. connata</i>	A II - 14
57-60	C26 <i>S. tigrina</i> ; C61 <i>S. Assideasis</i> ; C13, C62 <i>S. wardii</i>	A II - 15
61-64	C23 <i>S. ecornuta</i> ; C63 <i>S. Penelope</i> ; C77, C06 <i>S. oculata</i>	A II - 16
65-68	C35 <i>G. utriculata</i> ; C38 <i>M. corymbosa</i> ; C37, C86 <i>G. supurba</i>	A II - 17
69-72	C38 <i>M. corymbosa</i> ; C37, C86 <i>G. supurba</i> ; C39 <i>Spiranthes sp. ign.</i>	A II - 18
73-76	C37 <i>G. utriculata</i> ; C86 <i>G. supurba</i> ; C39, C36 <i>Spiranthes spp. ign.</i>	A II - 19
77-80	C51 <i>S. intermedia</i> ; C03, C16 <i>S. insignis</i> ; C21 <i>S. reichenbachiana</i>	A II - 20
81-84	C94 <i>S. tigrina</i> '331 ER'; C33, C59, C07 <i>S. tigrina</i>	A II - 21
85-88	C51 <i>S. hernandezii</i> ; C31, C54 <i>S. platyceras</i> ; C21 <i>S. reichenbachiana</i>	A II - 22
89-92	C04 <i>S. hernandezii</i> ; C52 <i>S. connata</i> ; C16, C03 <i>S. insignis</i>	A II - 23
93-96	C50 <i>S. pulla</i> ; C31 <i>S. platyceras</i> ; C47 <i>S. embreei</i> ; C21 <i>S. reichenbachiana</i>	A II - 24
97-100	C45 <i>S. saccata</i> ; C08 <i>S. graveolens</i> ; C10 <i>S. martiana</i> ; C69 <i>S. radiosa</i>	A II - 25
101-104	C83 <i>S. cf. amoena</i> ; C98 <i>S. 'Huatusco II'</i> ; C93 <i>S. 'Huatusco'</i> ; C17 <i>S. costaricensis</i>	A II - 26
105-108	C48 <i>S. inodora</i> ; C93 <i>S. 'Huatusco'</i> ; C98 <i>S. 'Huatusco II'</i> ; C06 <i>S. oculata</i>	A II - 27

Figuras 1-4. Curvas de Gauss: C26, C33, C59, C07 *S. tigrina*.

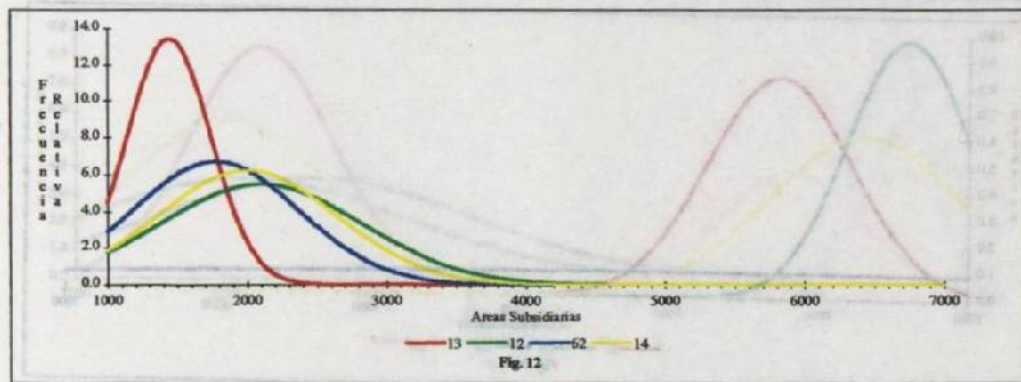
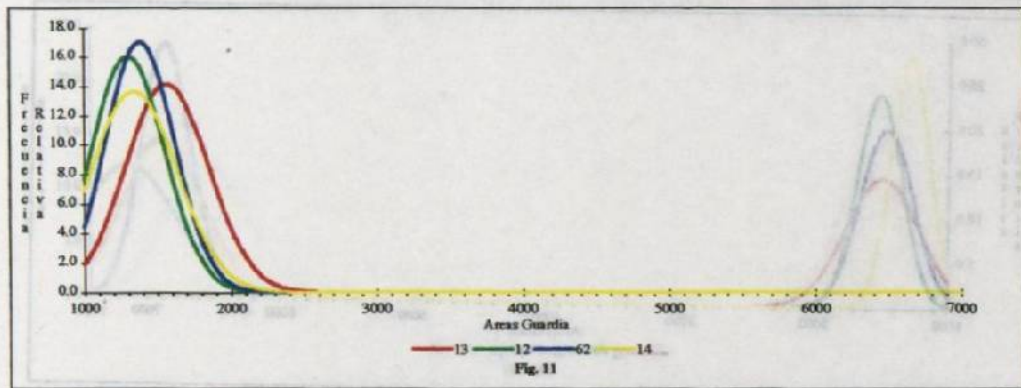
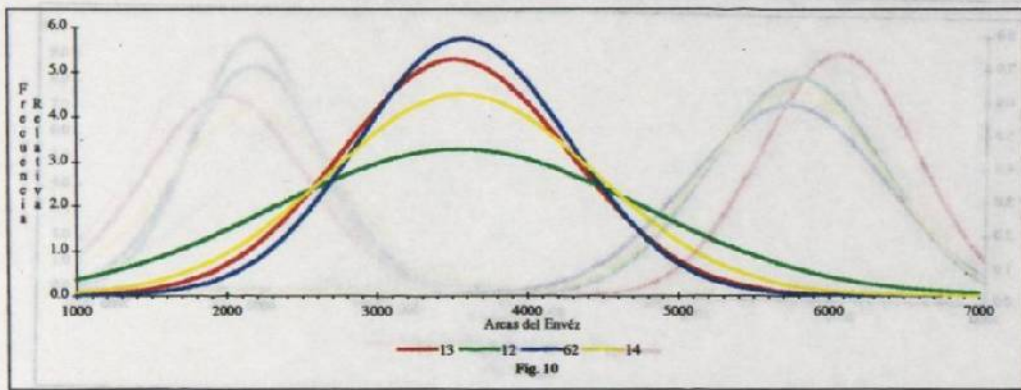
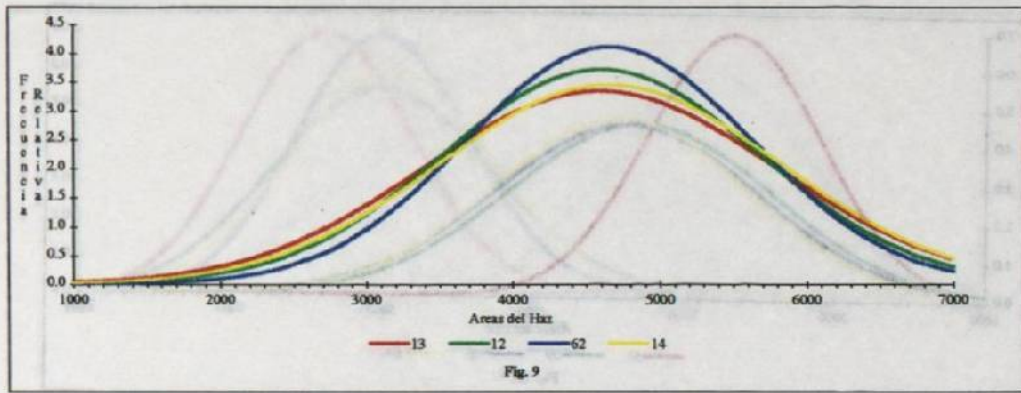




Figuras 5-8. Curvas de Gauss. C15 *S. nigroviolacea* y C33, C59, C07 *S. nigra*.

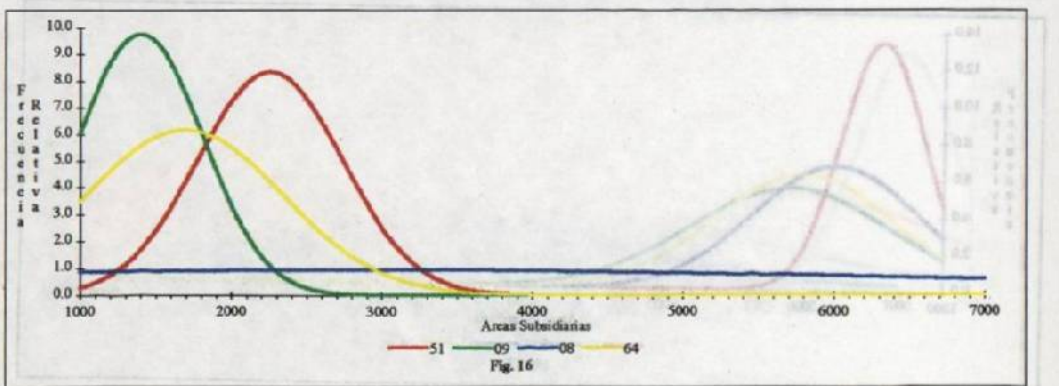
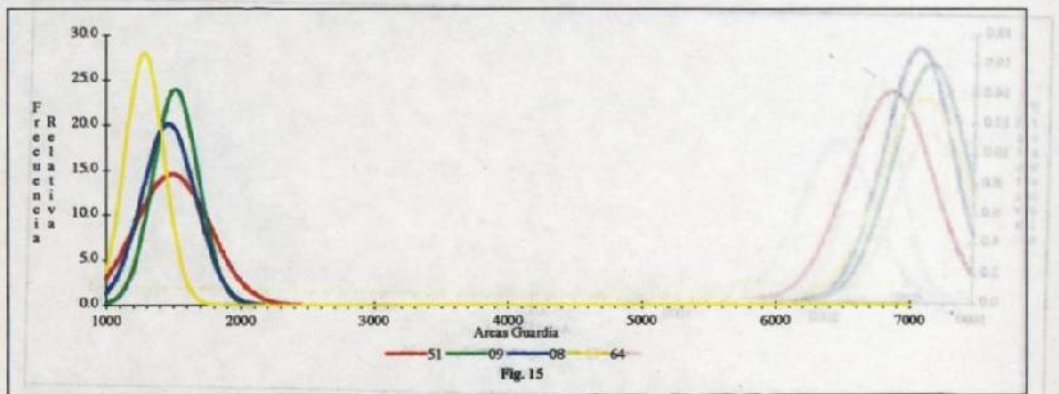
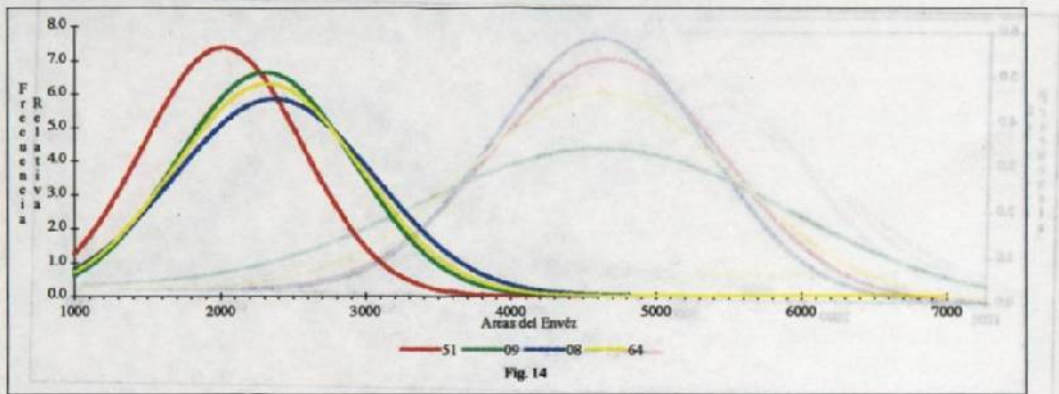
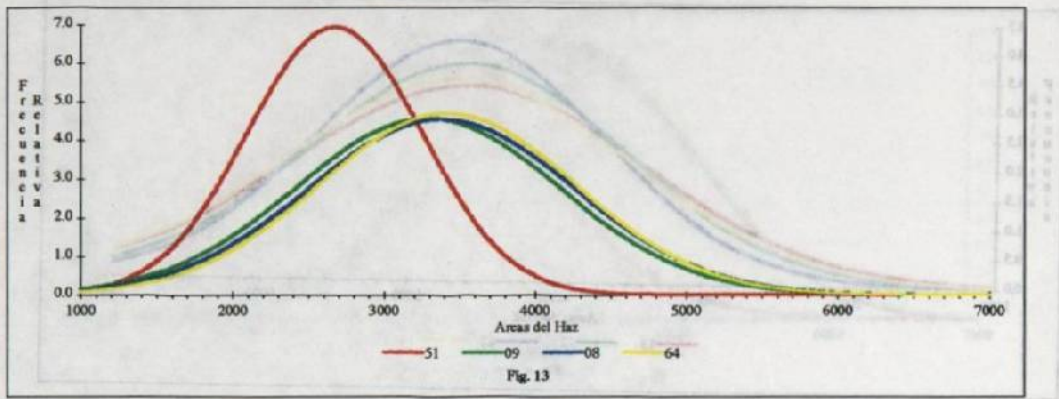


Figuras 9-12. Curvas de Gauss: C13, C12, C62, y C14 S. wordii.

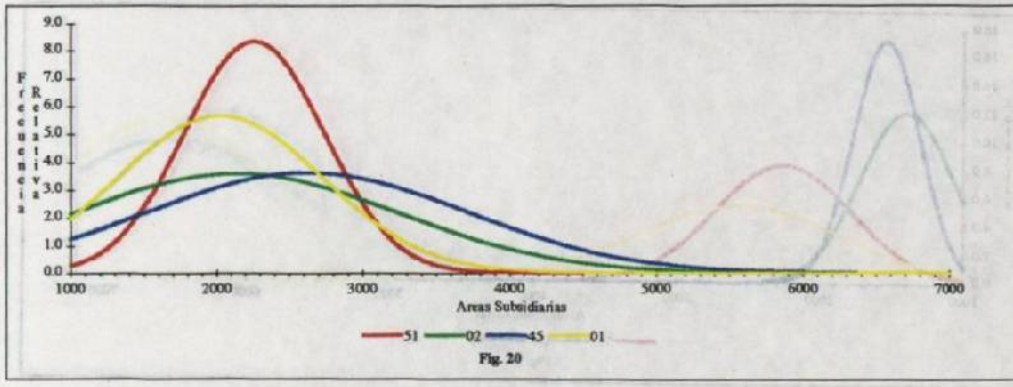
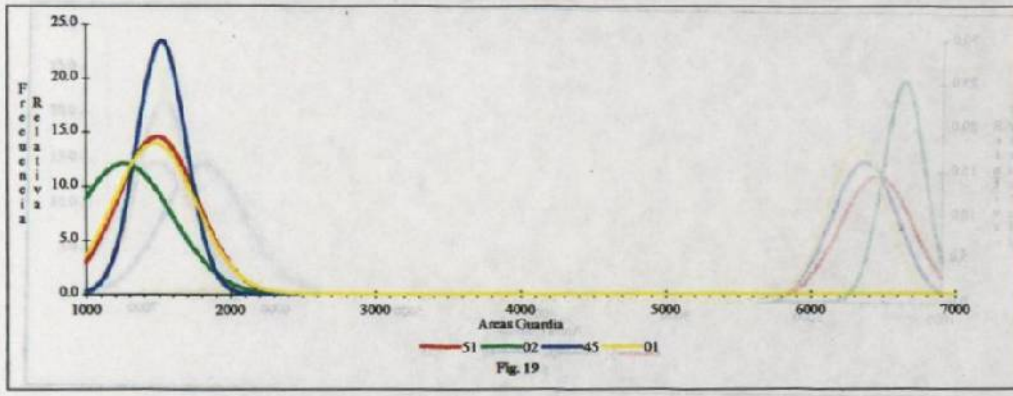
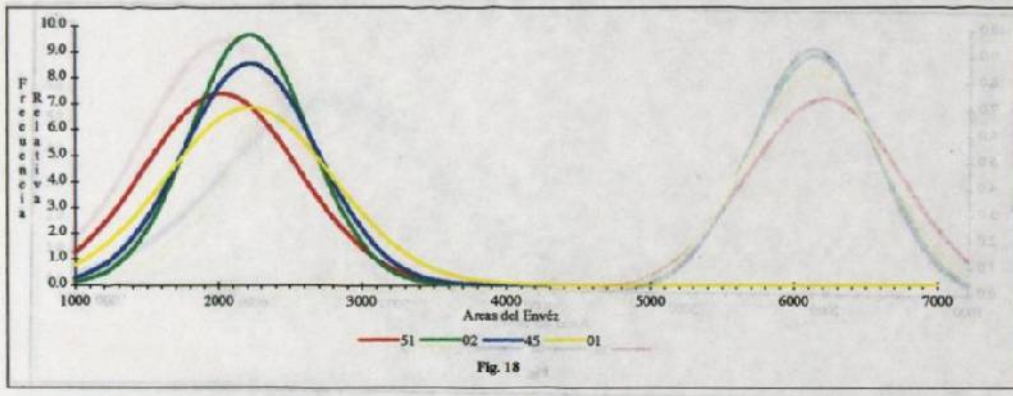
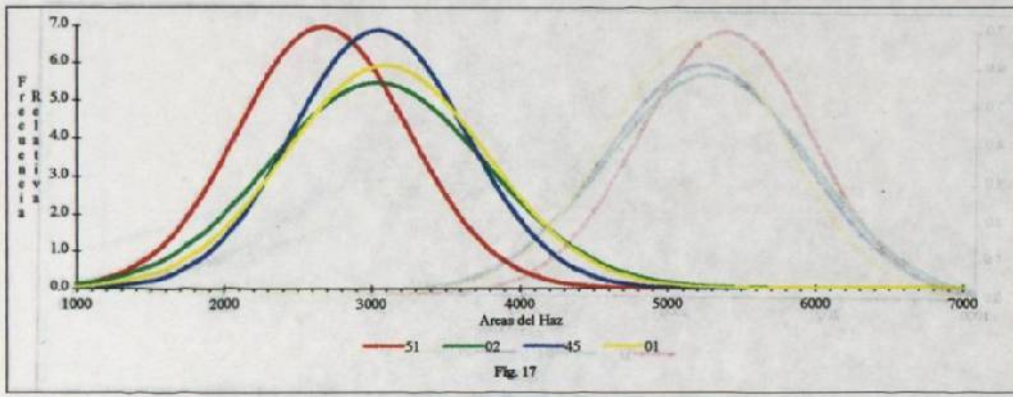


Figuras 13-16. Curvas de Gauss. C51 S. *intermedia* y C09, C08, C64 S. *graveolens*.

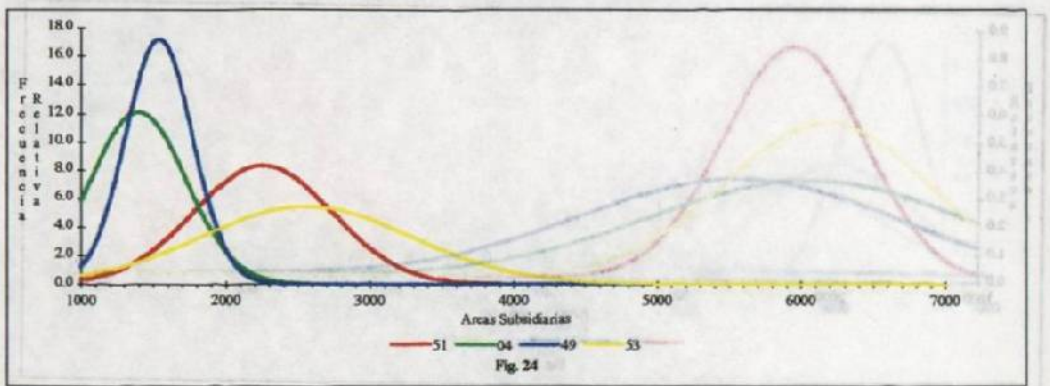
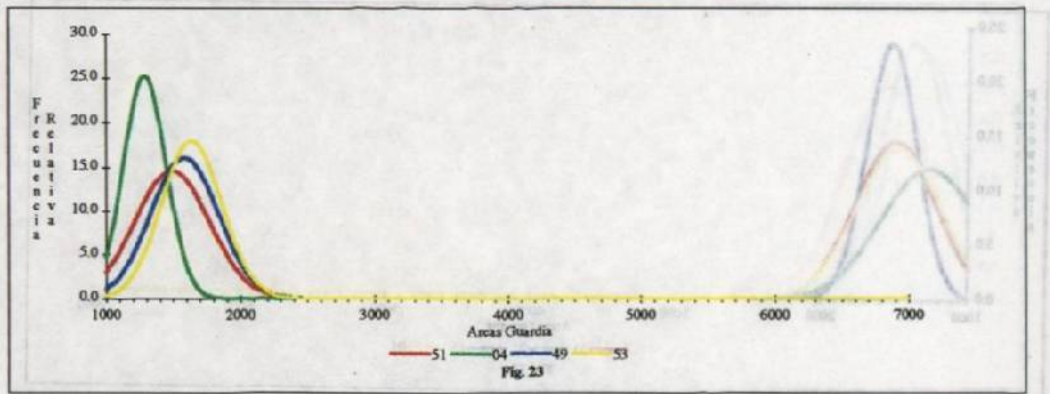
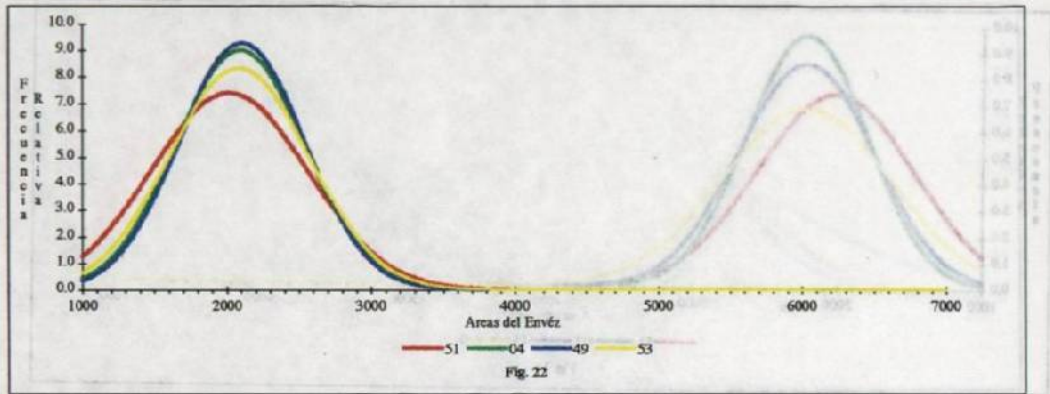
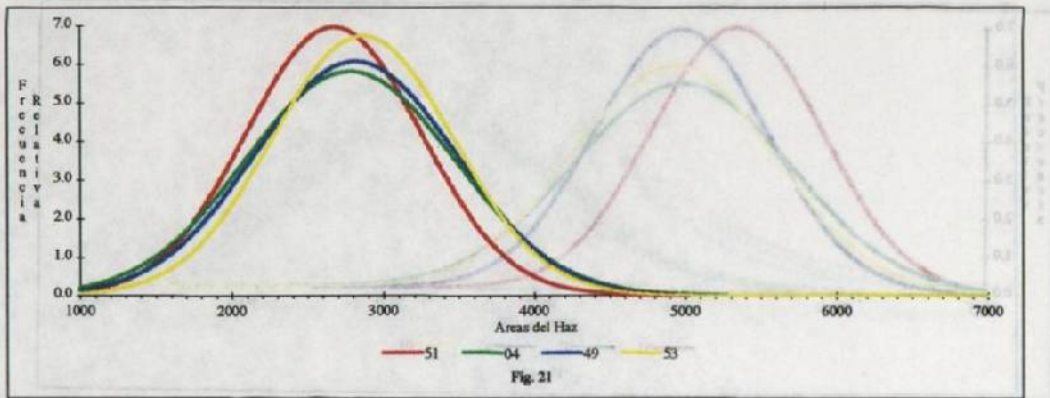
Figura 13-16. Curvas de Gauss. C51 S. *intermedia* y C09, C08, C64 S. *graveolens*.



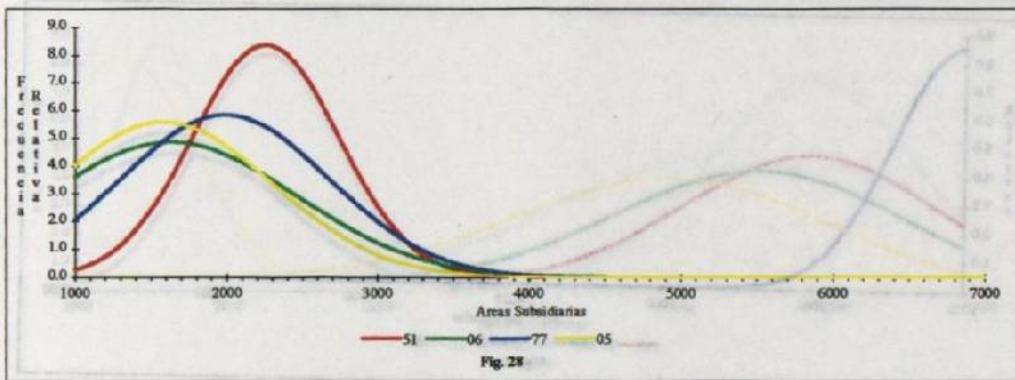
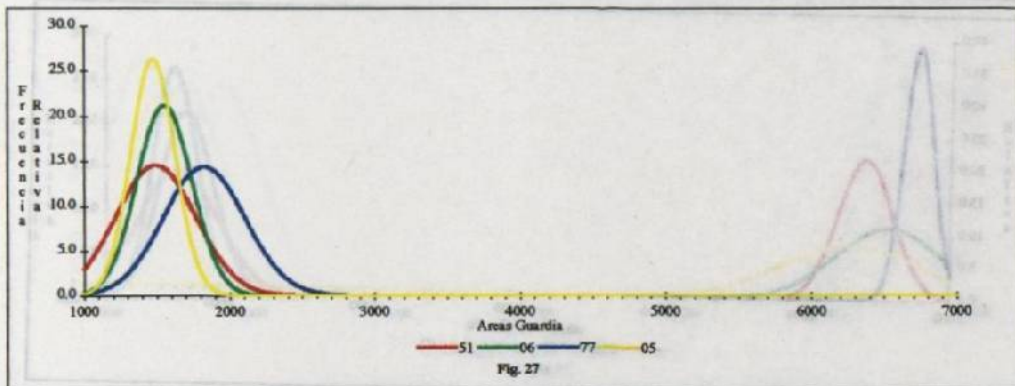
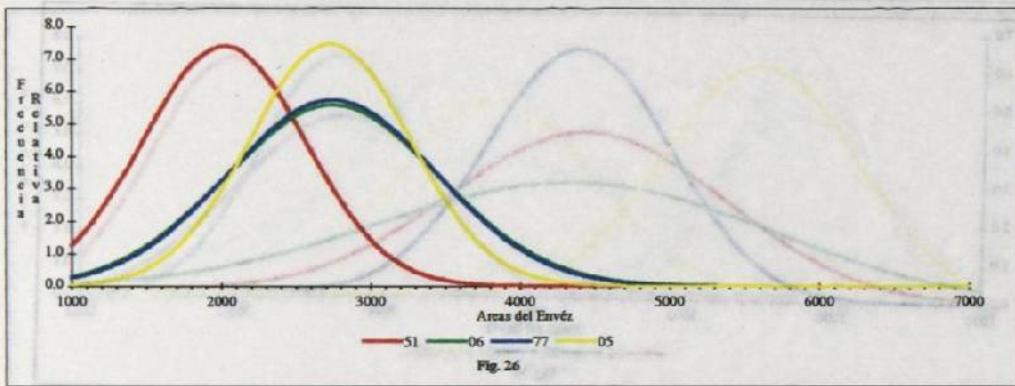
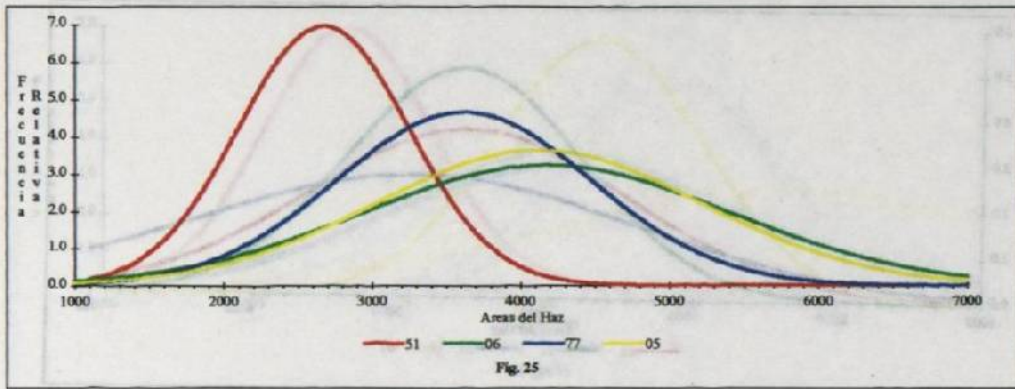
Figuras 17-20. Curvas de Gauss: C51 *S. intermedia* y C02, C45, C01 *S. saccata*.



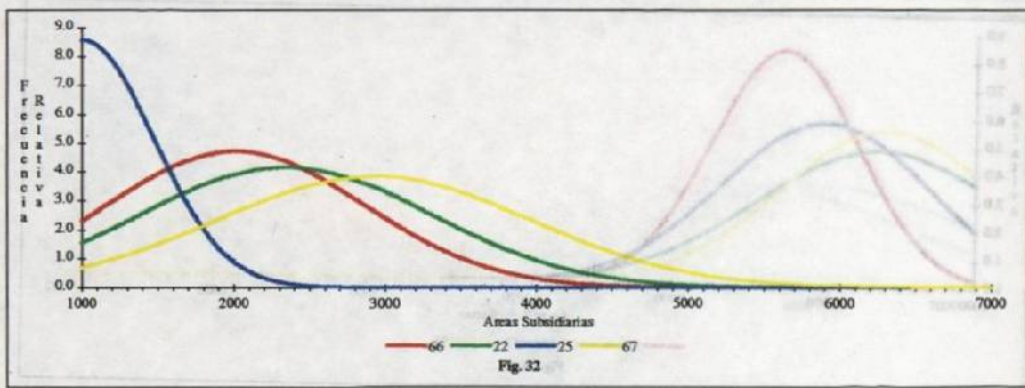
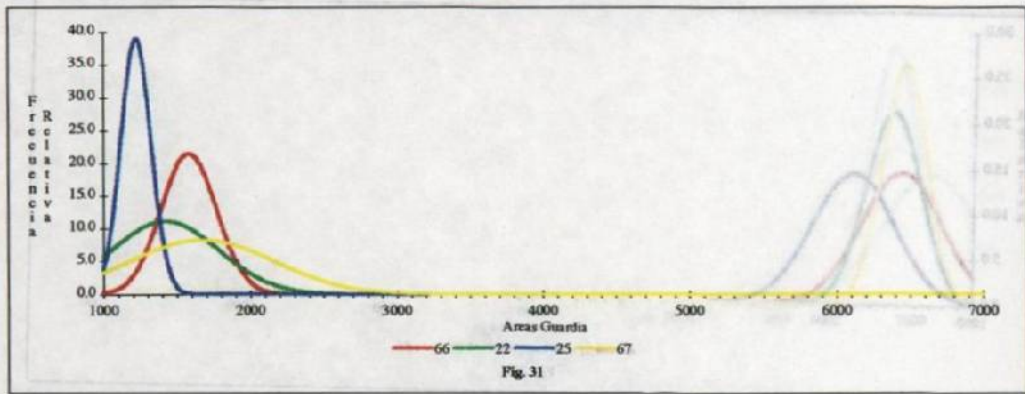
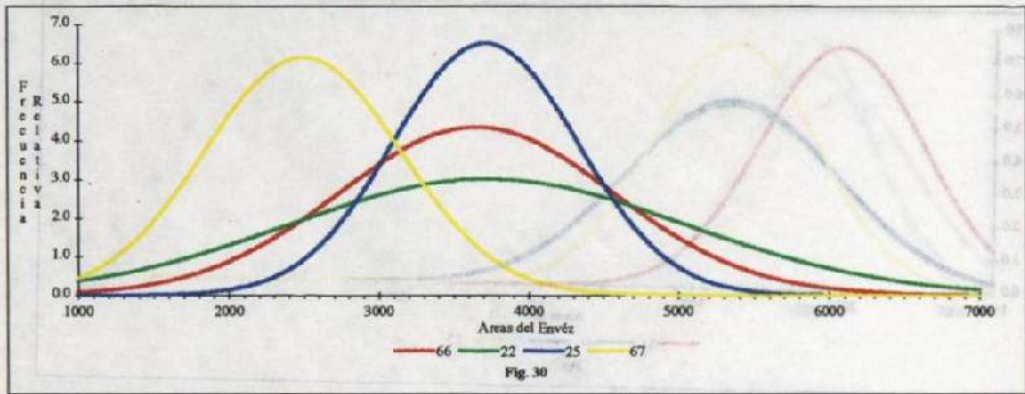
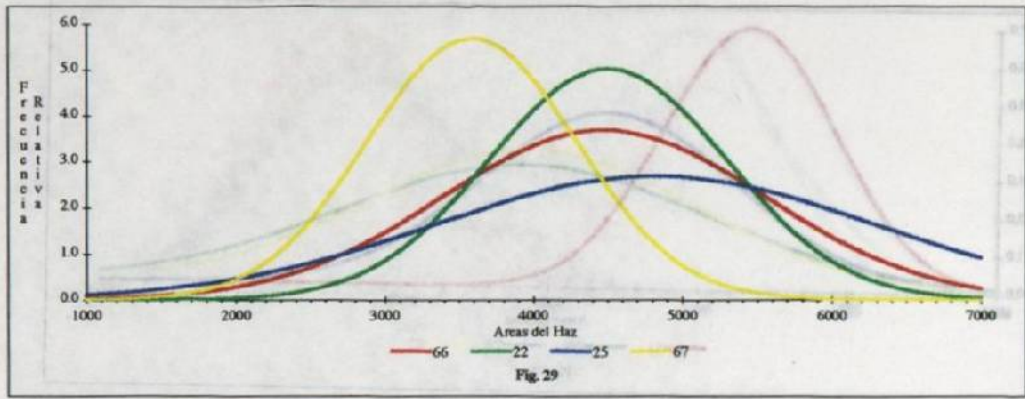
Figuras 21-24. Curvas de Gauss. C51 S. intermedia y C04, C49, C53 S. Hernandez.



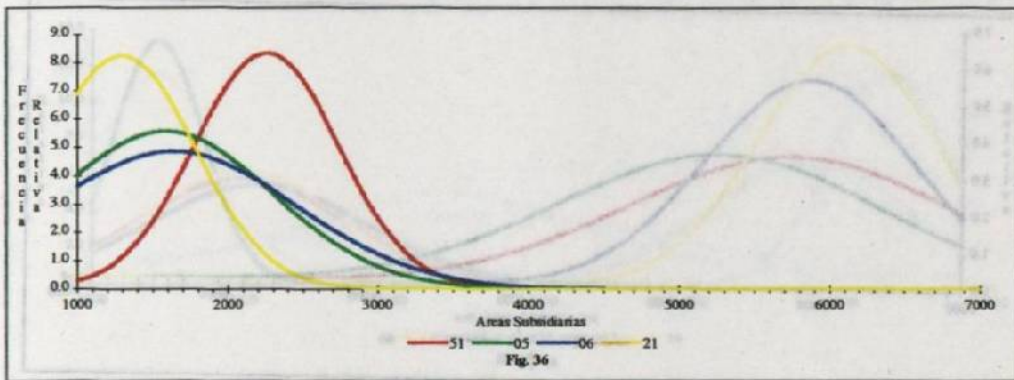
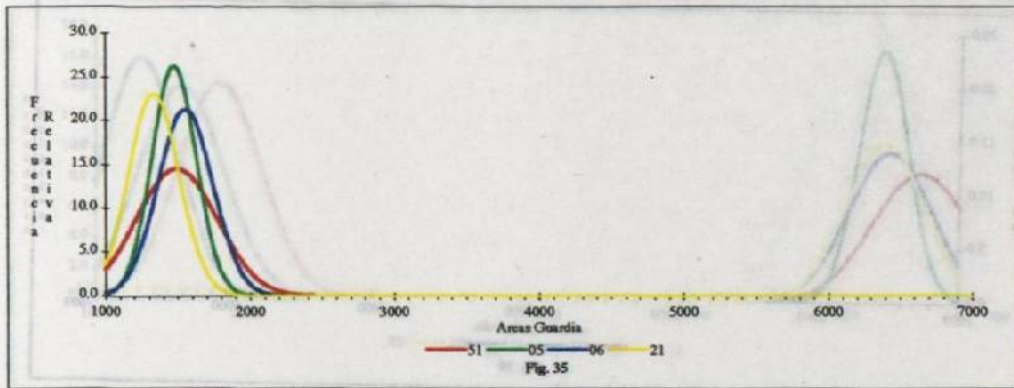
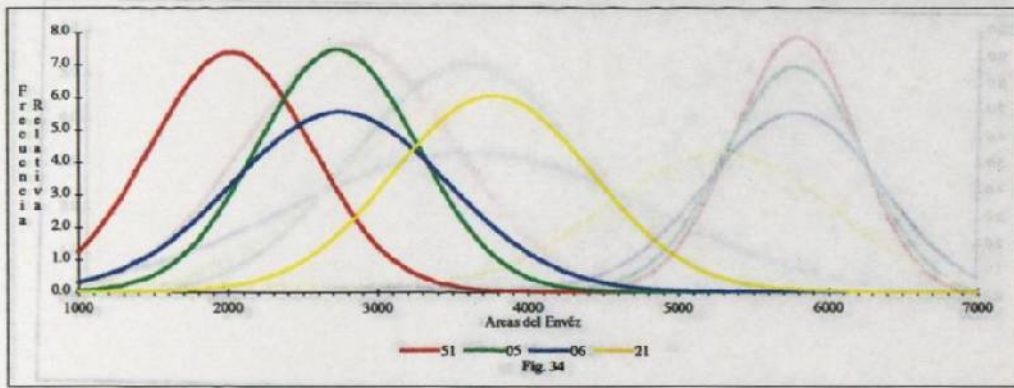
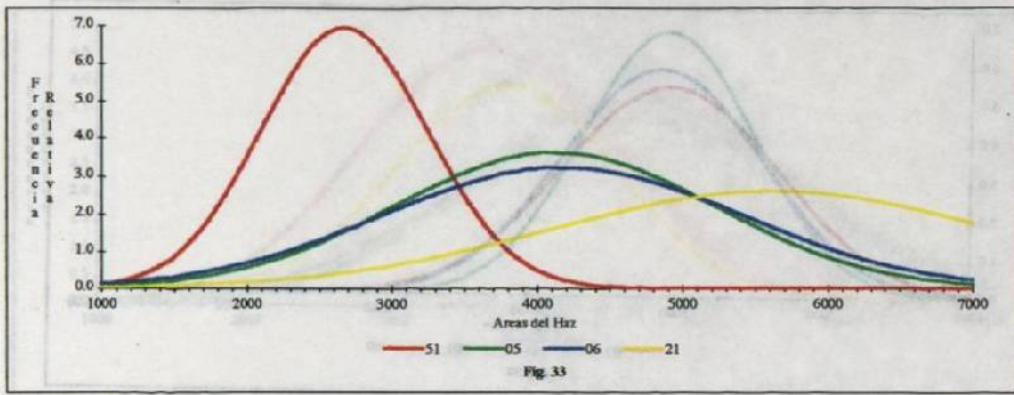
Figuras 25-28. Curvas de Gauss. C51 *S. intermedia* y C06, C77, C05 *S. oculata*.



Figuras 29-32. Curvas de Gauss. C66, C22.S. eburnea C25, C67 S. grandiflora.

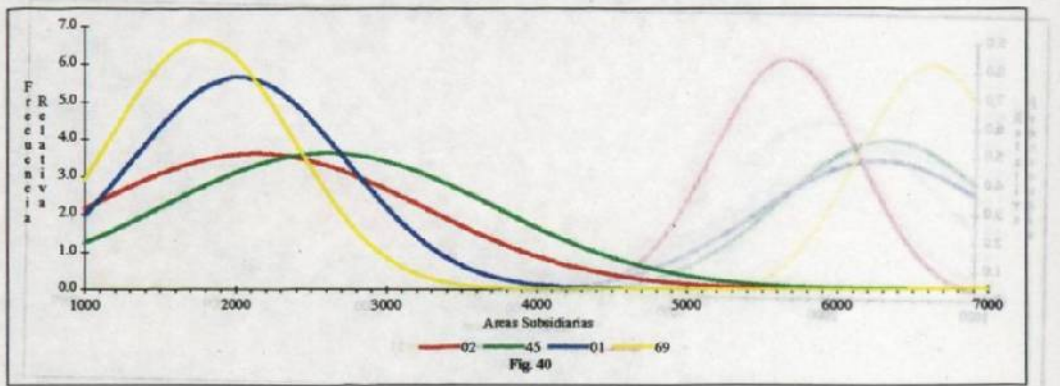
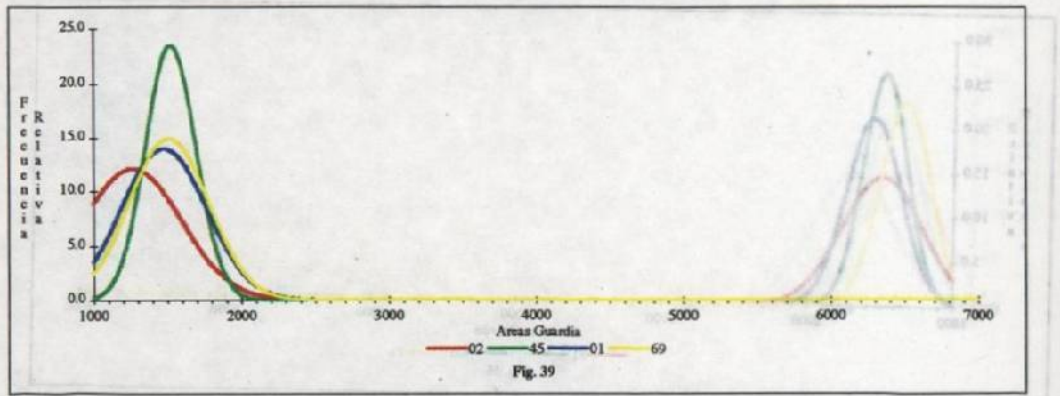
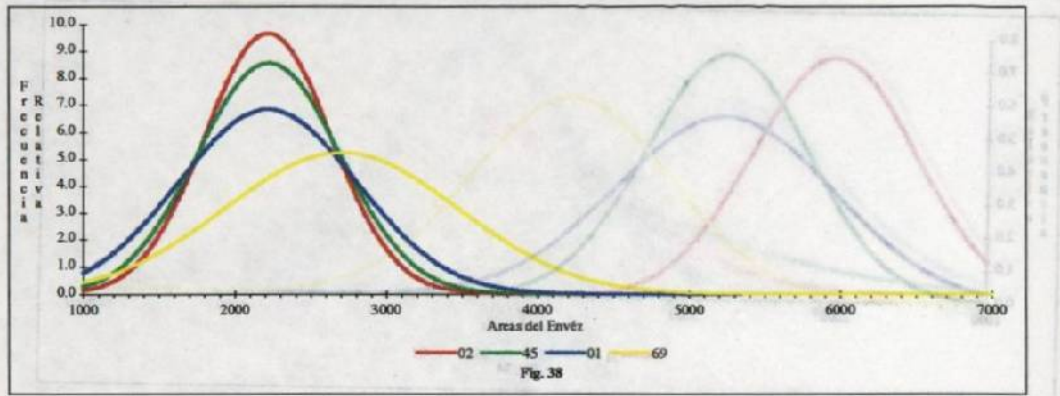
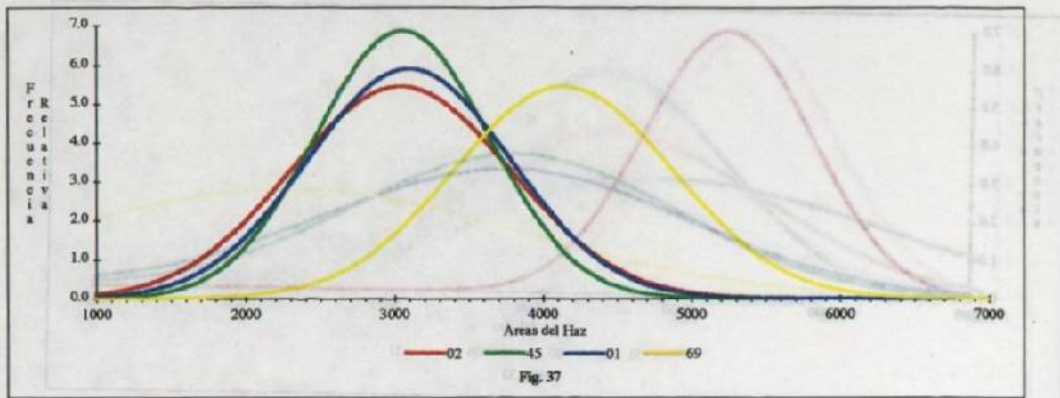


Figuras 33-36. Curvas de Gauss. CS1 *S. intermedia*; C05, C06 *S. oculata*; C21 *S. reichenbachiana*.

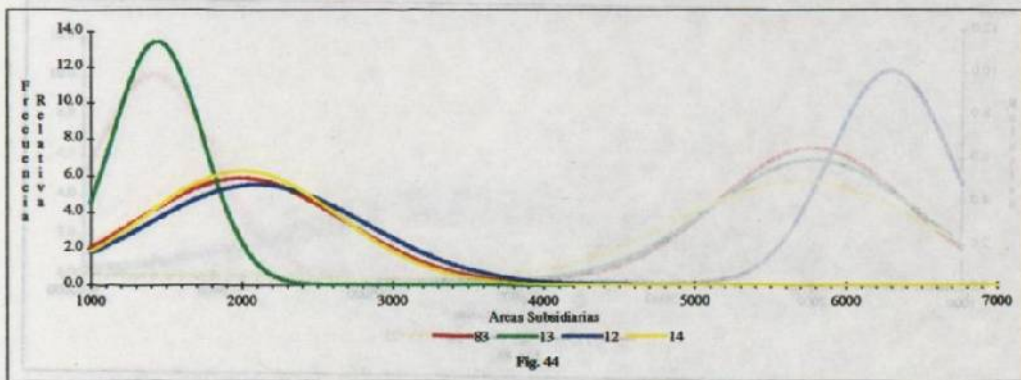
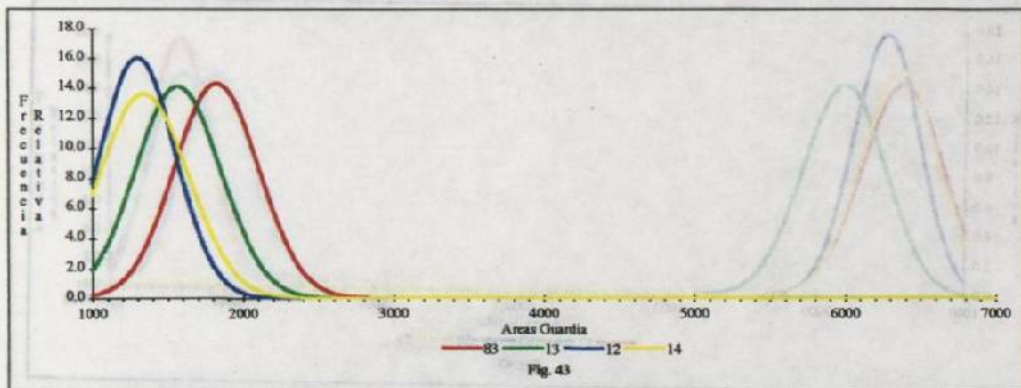
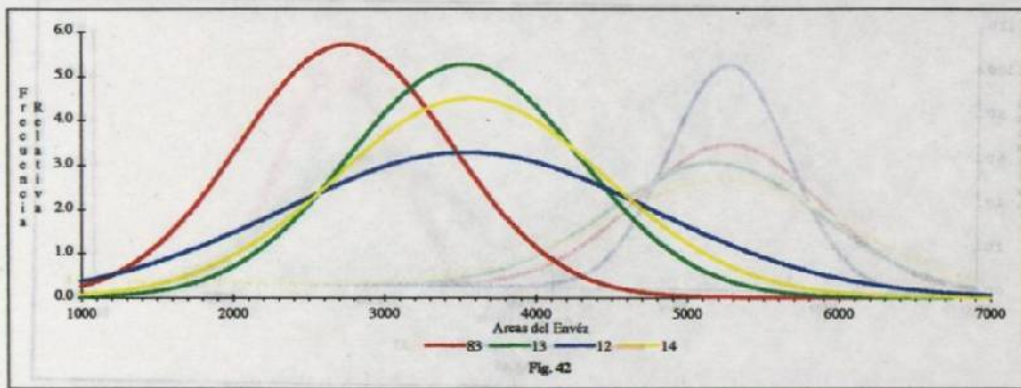
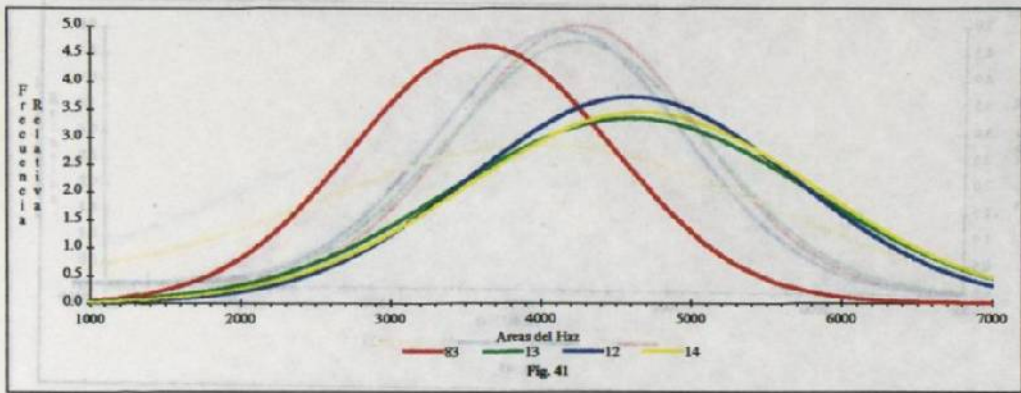




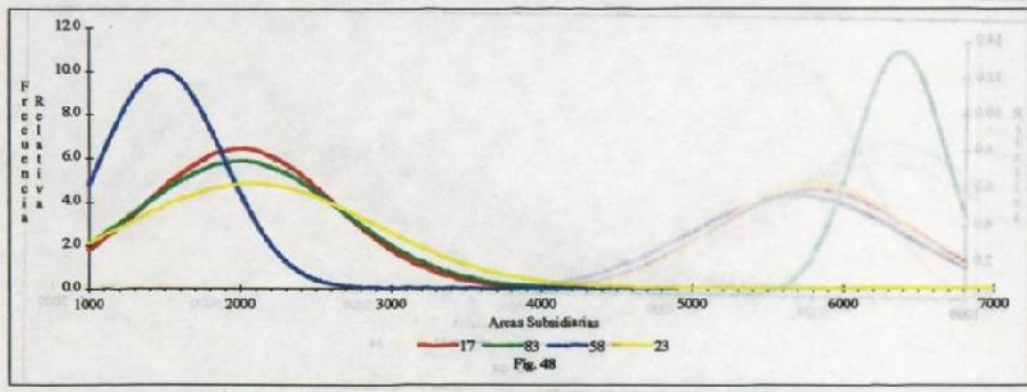
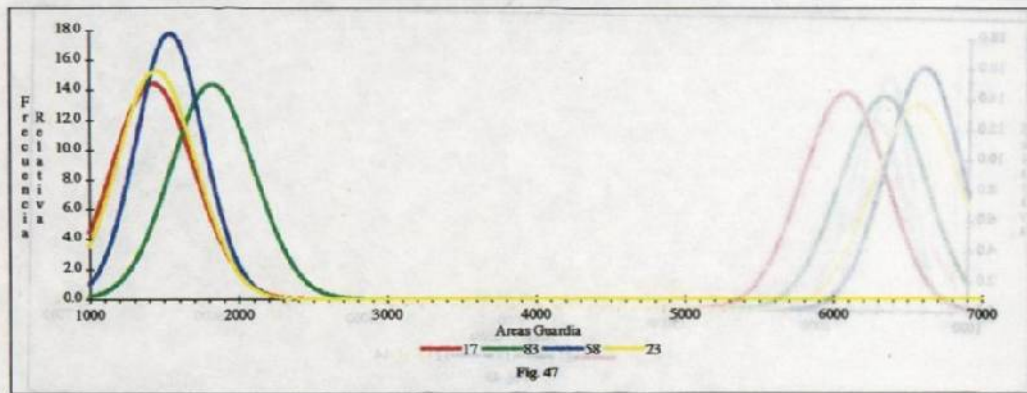
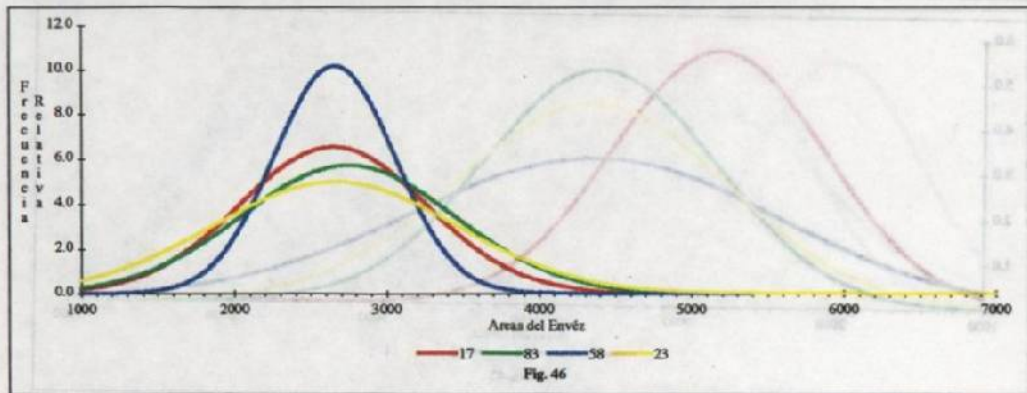
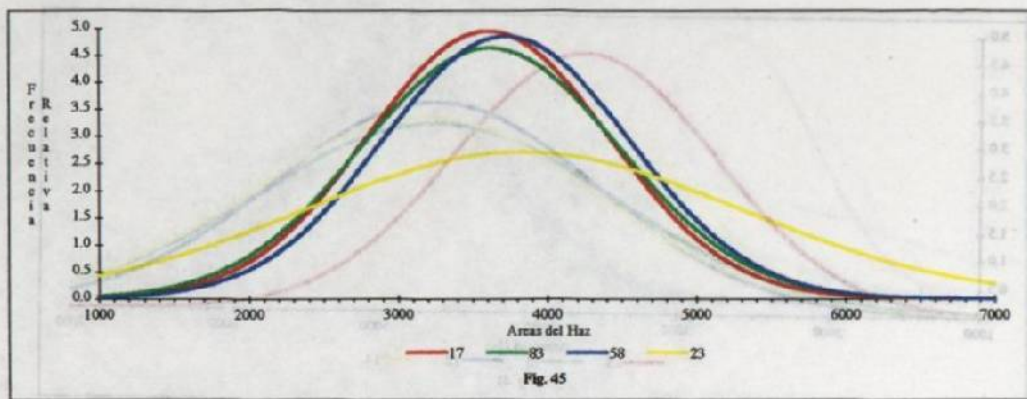
Figuras 37-40. Curvas de Gauss. C02, C45, C01 S. sacota y C69 S. radiosa.



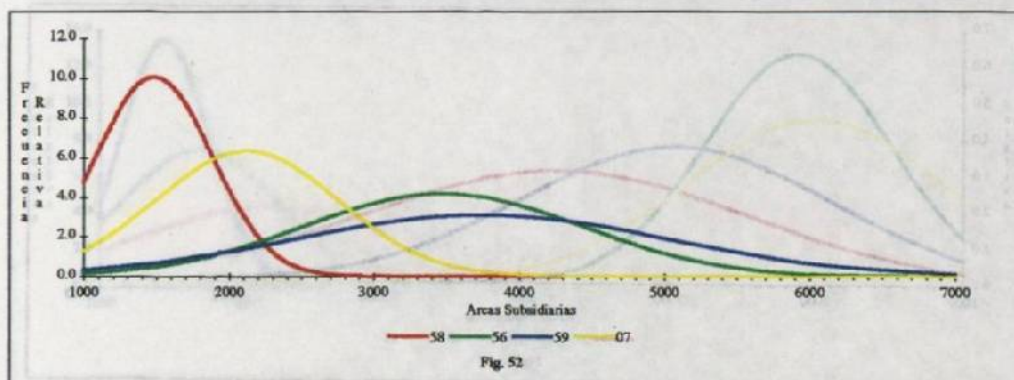
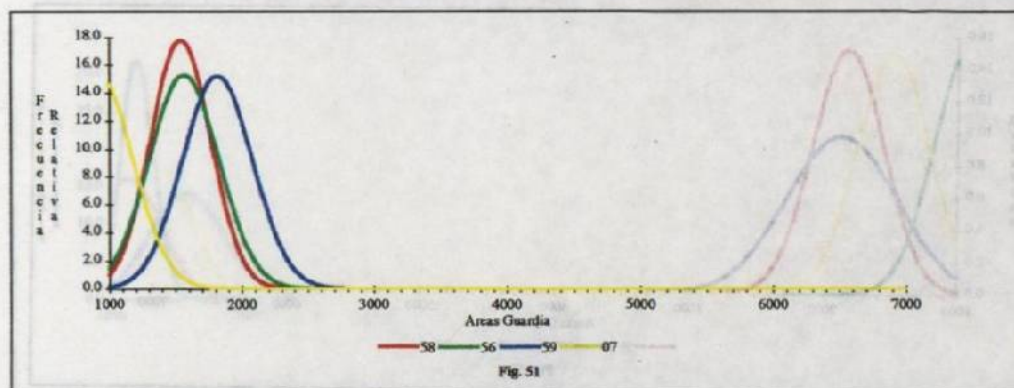
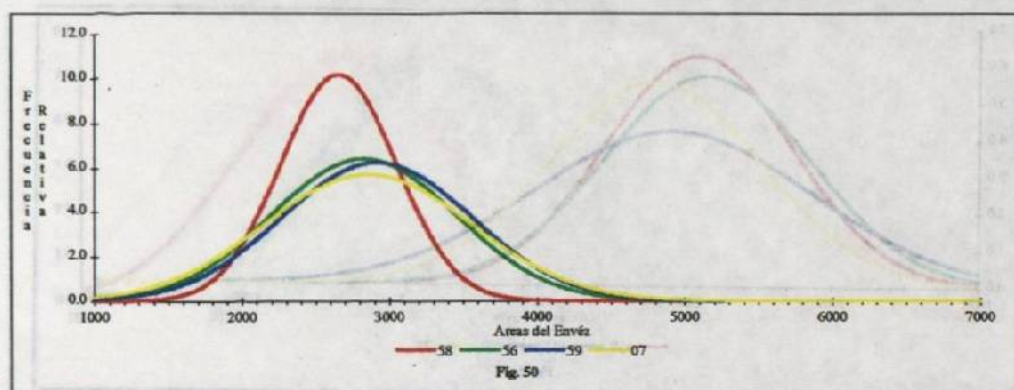
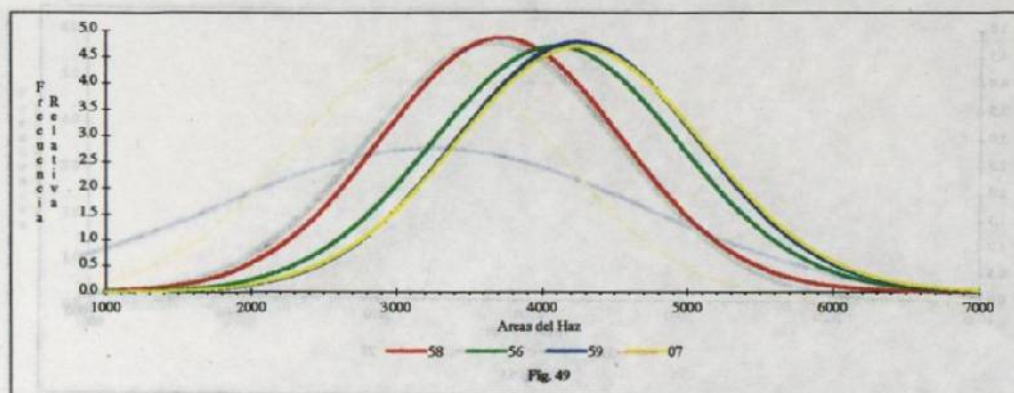
Figuras 41-44. Curvas de Gauss. C83 S. sp. (gr. 'amoena' y C13, C12, C14 S. wardii.



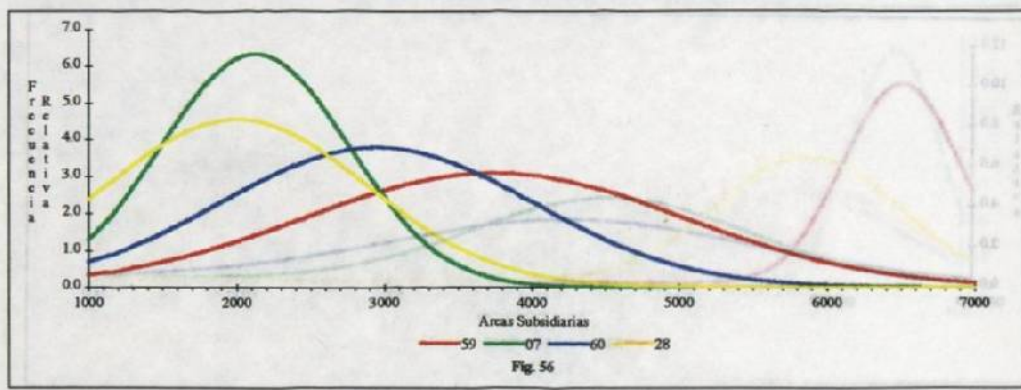
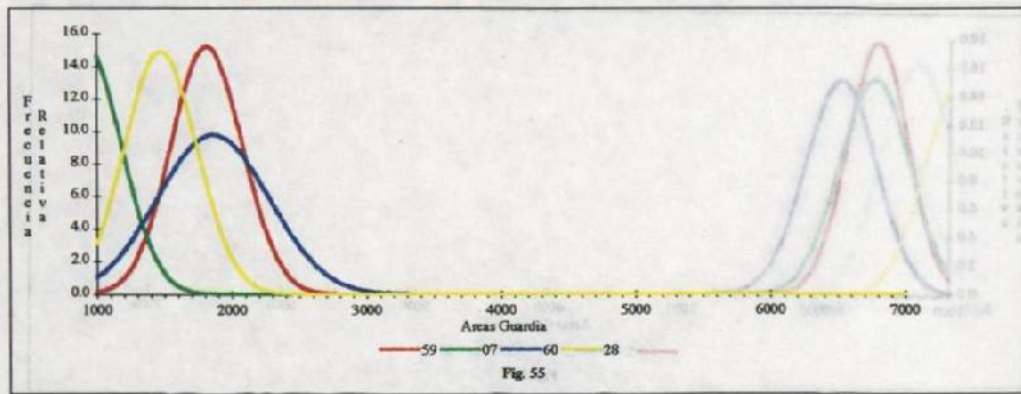
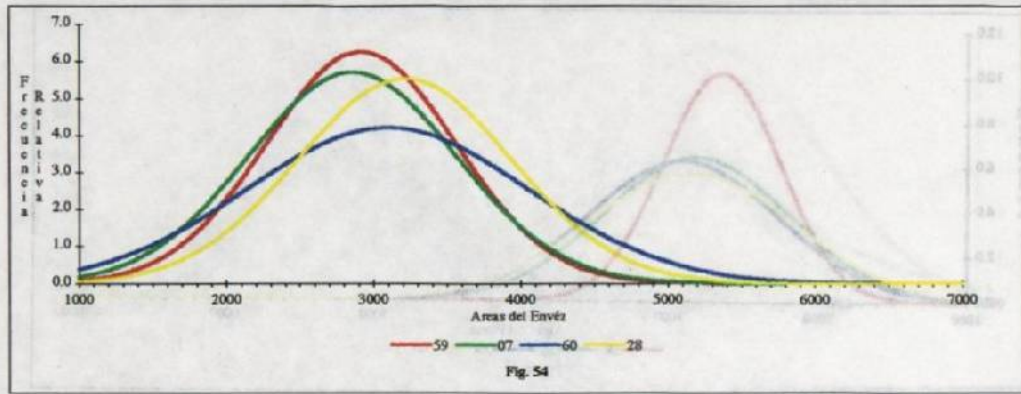
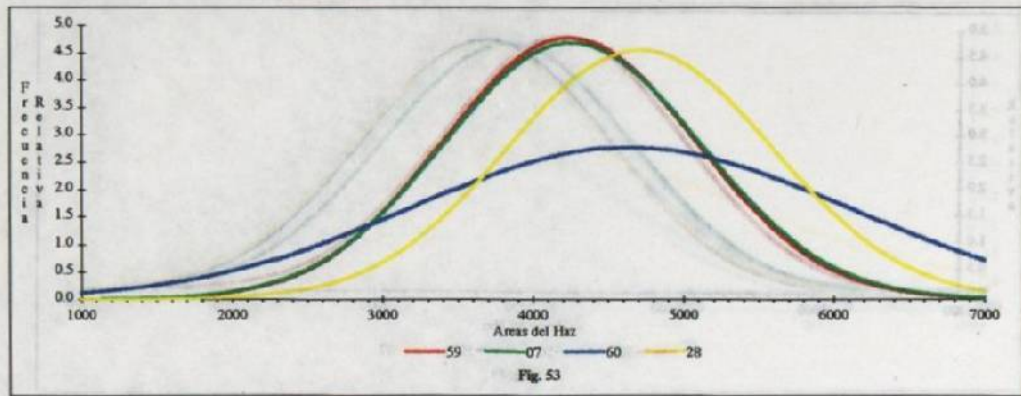
Figuras 45-48. Curvas de Gauss. C17 S. costaricensis; C83 S. amoena; C58 S. parsonsii; C23 S. eorumato.



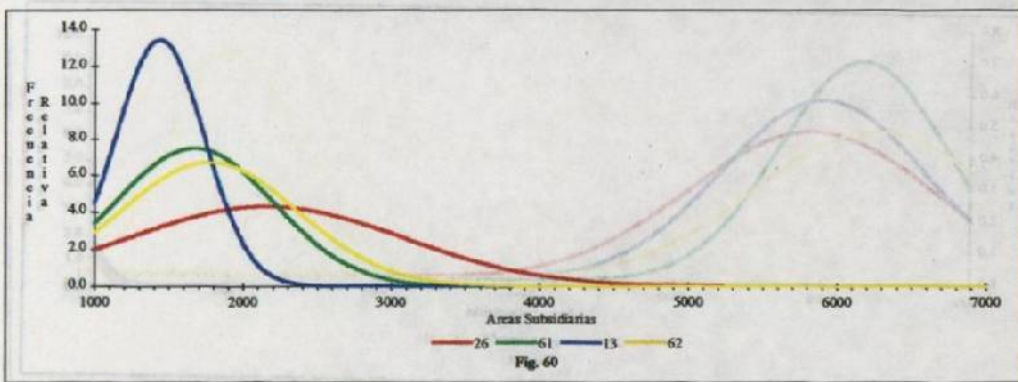
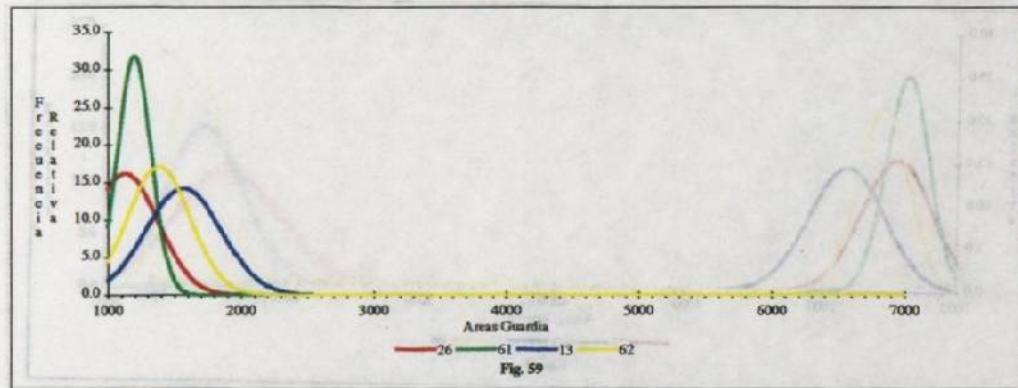
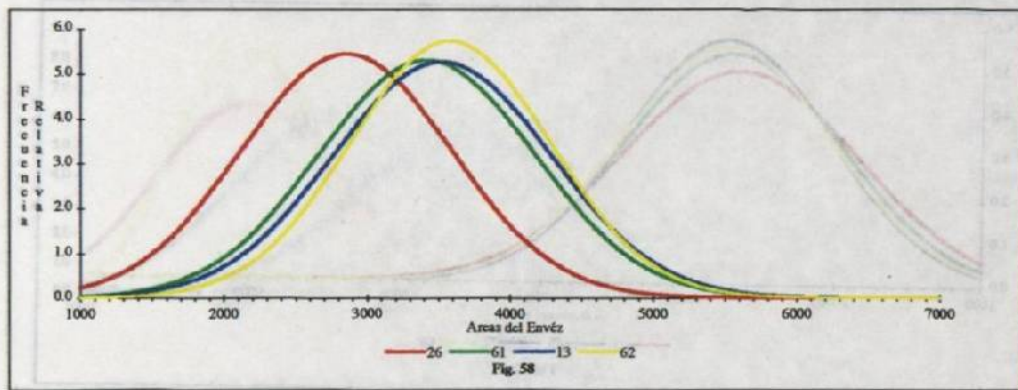
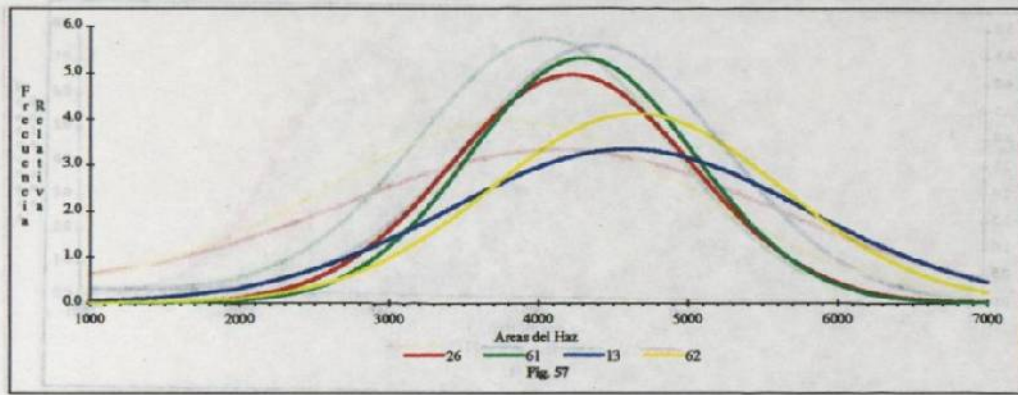
Figuras 49-52. Curvas de Gauss. C58 S. *panamensis*, C56 S. *Choc. Chips Lindt*, y C59, C07 S. *tigrina*.



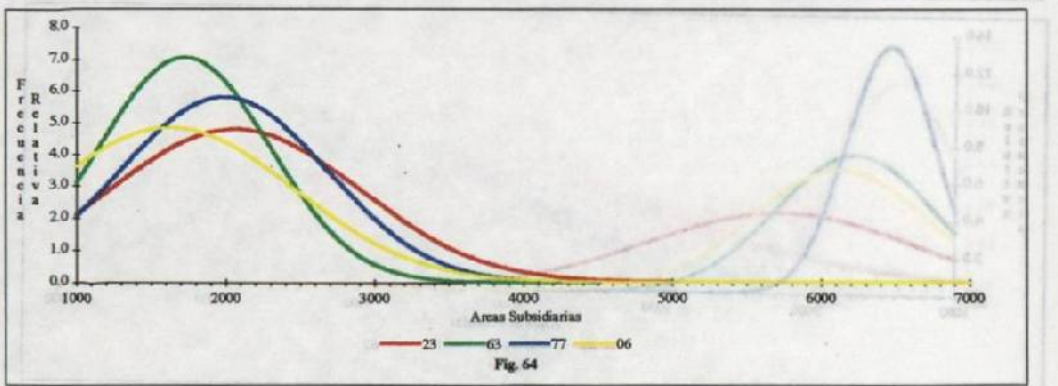
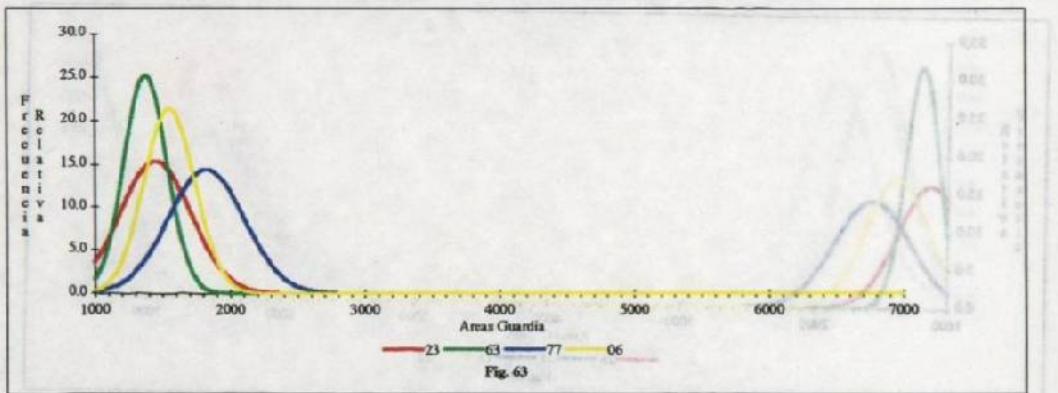
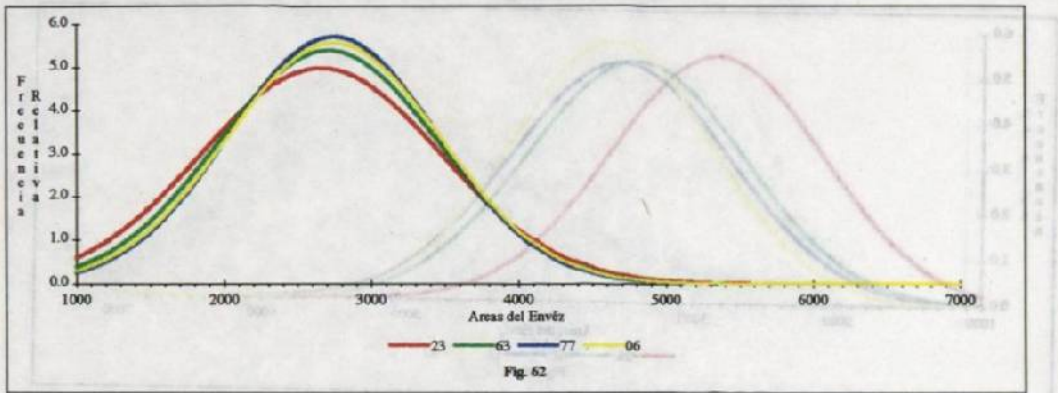
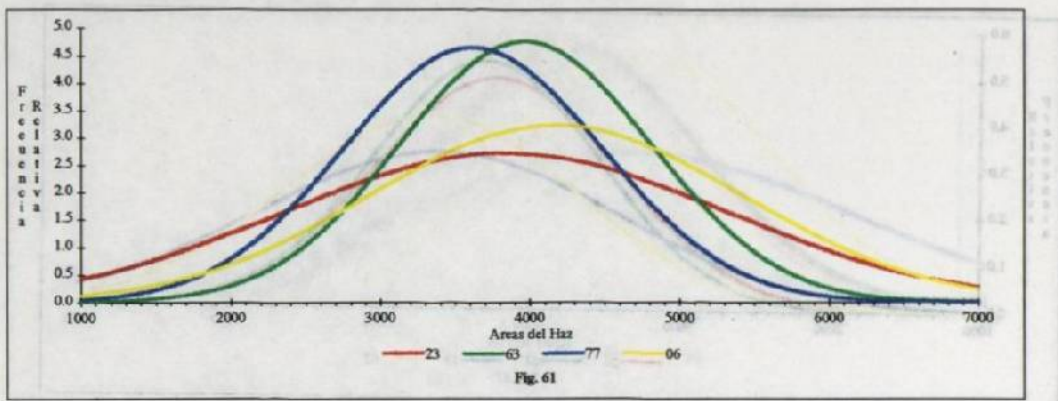
Figuras 53-56. Curvas de Gauss. C59, C07 S. tigrina, C60 S. Love Potion 'No.9' y C28 S. cornuta.



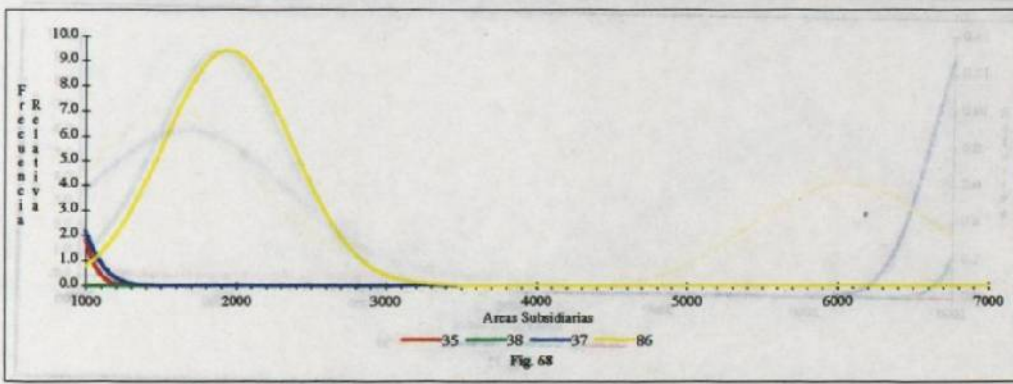
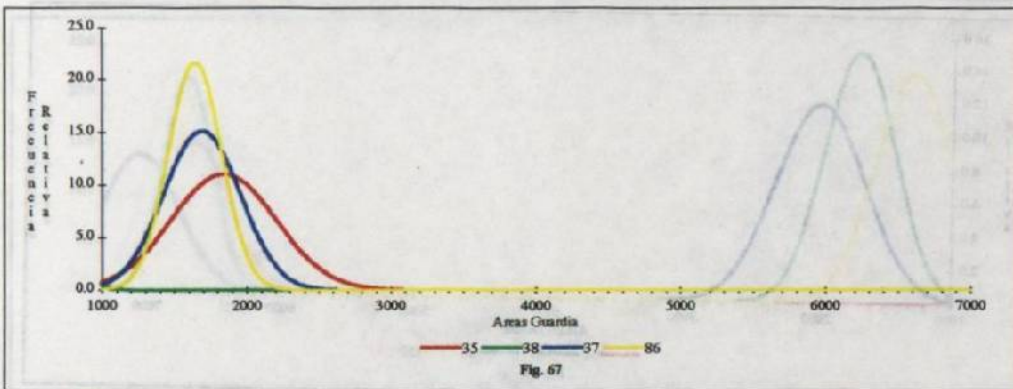
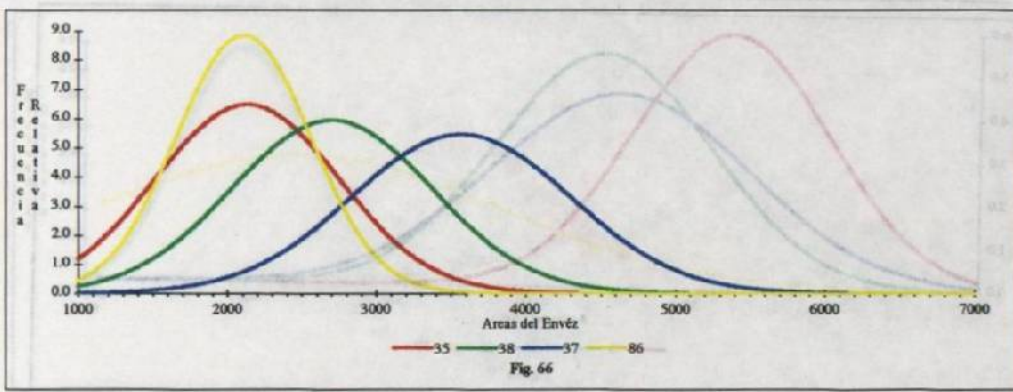
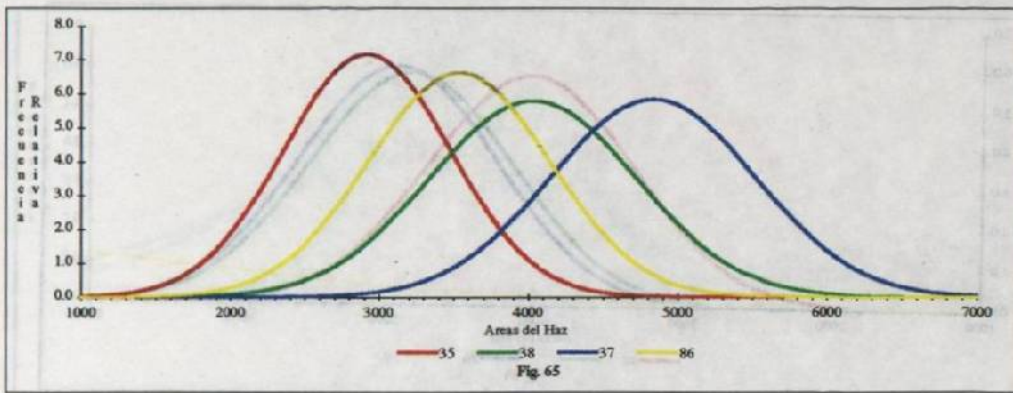
Figuras 57-60. Curvas de Gauss: C26 S. nigra, C61 S. Asidensis y C13, C62 S. wardii.



Figuras 61-64. Curvas de Gauss Ejemplares C23 S. *ecornata*, C63 S. *Penelope*, y C77, C06 S. *oculata*

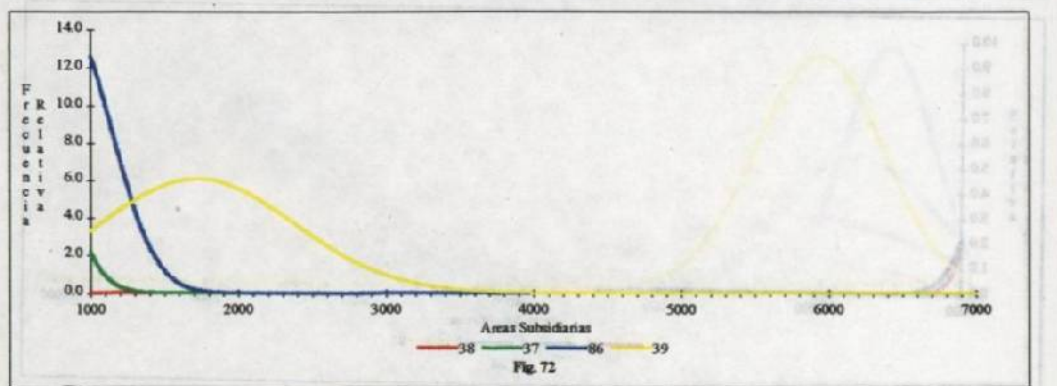
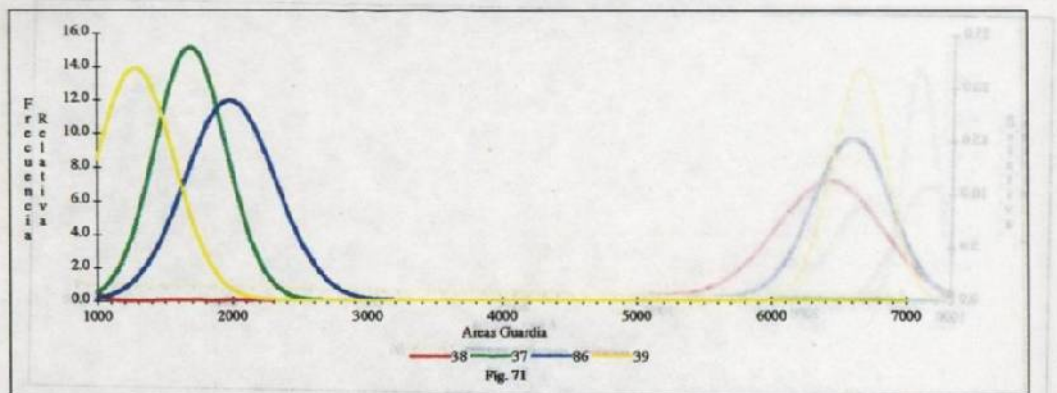
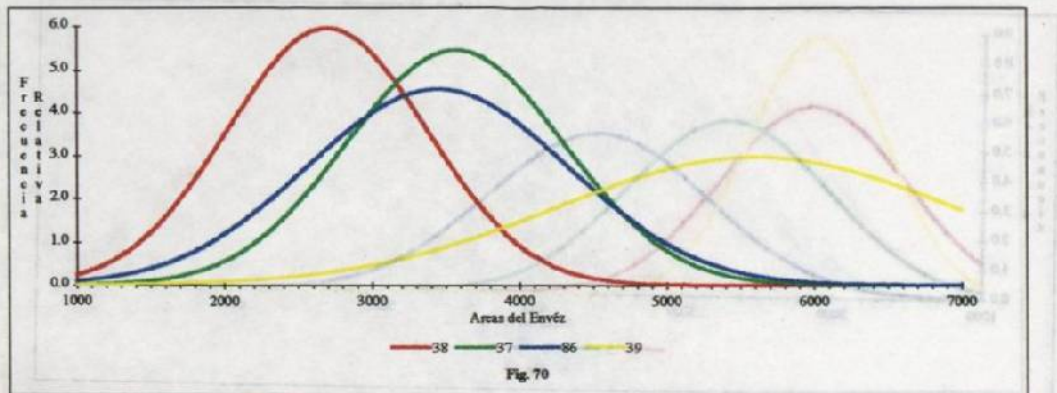
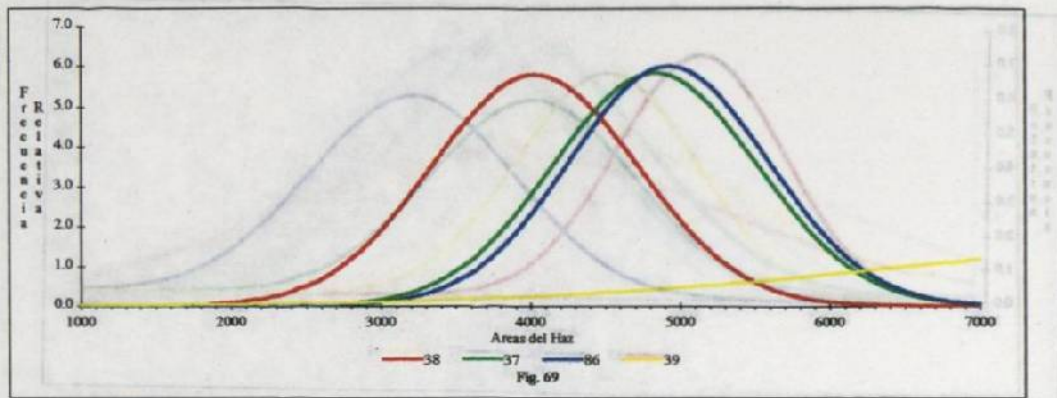


Figuras 65-68. Curvas de Gauss. C35 *G. striculata*, C38 *M. corymbosa*, y C37, C86 *G. superba*.

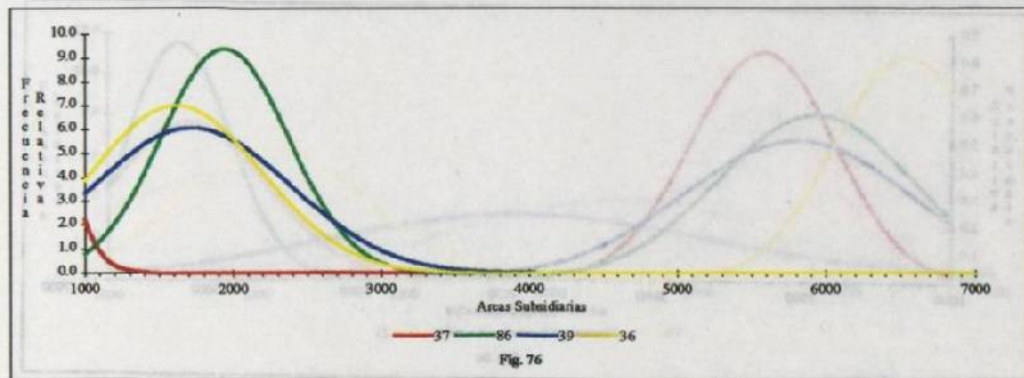
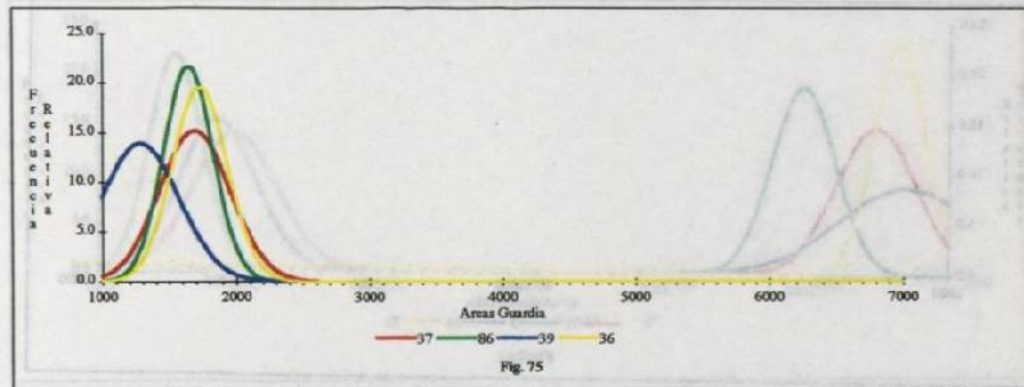
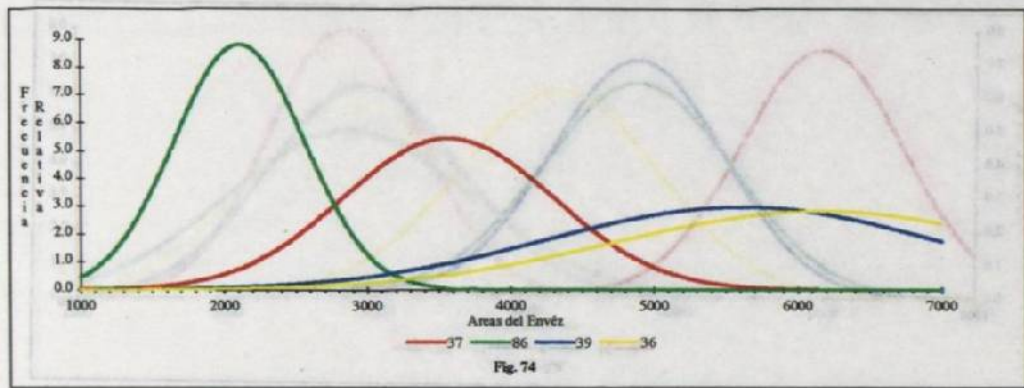
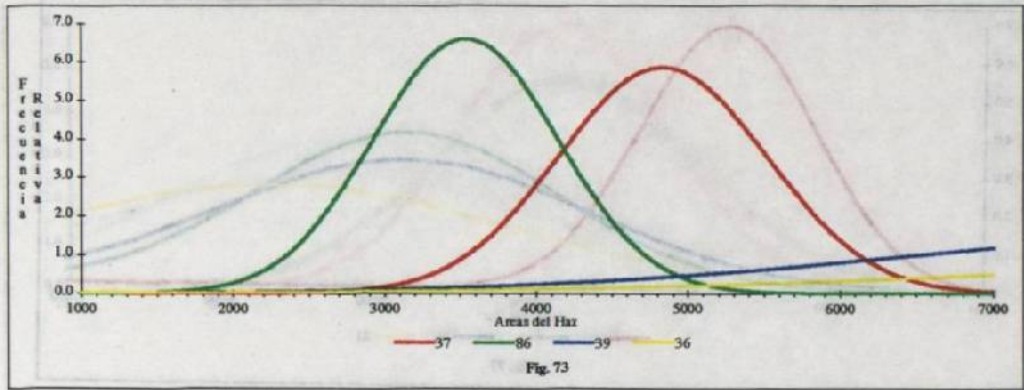




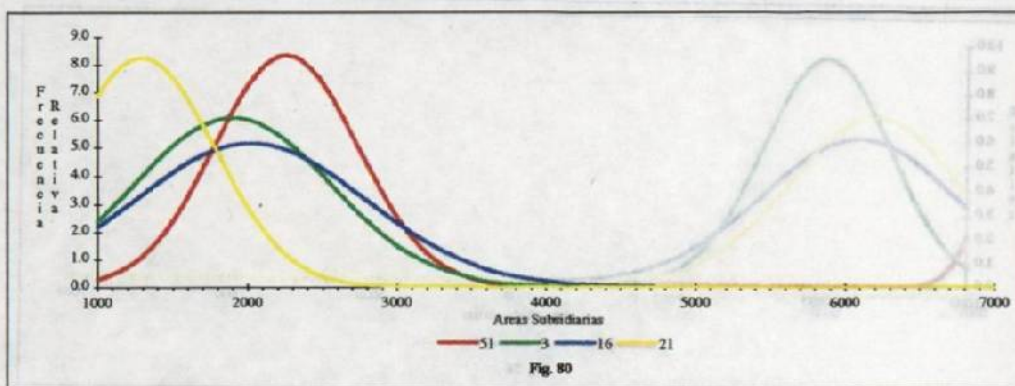
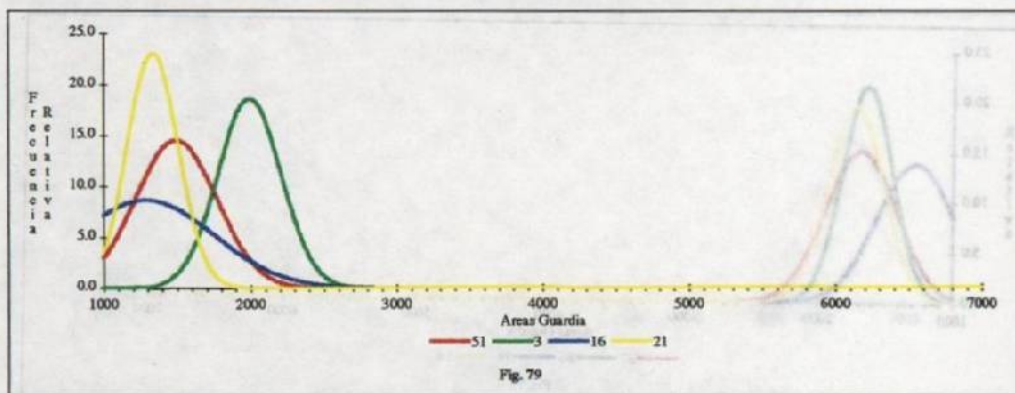
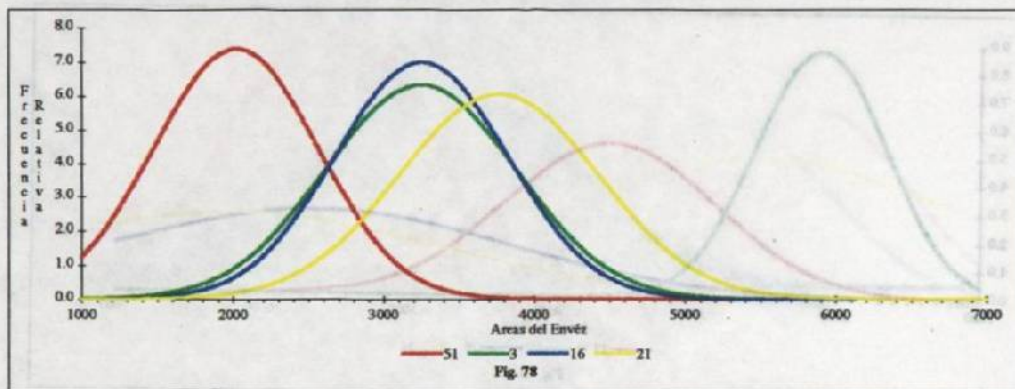
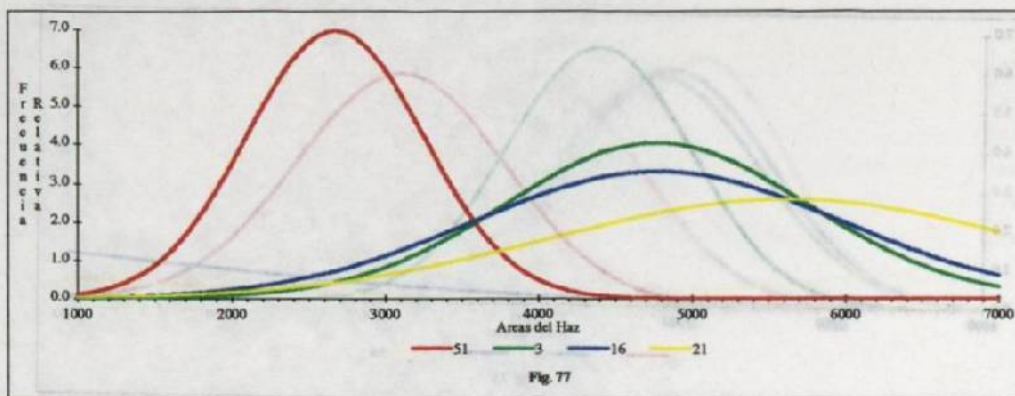
Figuras 69-72. Curvas de Gauss: C38 *M. corymbosa*, C37, C86 *G. supurba*, y C39 *Spiranthes sp. ign.*



Figuras 73-76. Curvas de Gauss. C37 *G. intricata*, C86 *G. surruba*, y C39, C36 *Spiranthes* spp. ign.



Figuras 77-80. Curvas de Gauss. C51 *S. intermedia*, C03, C16 *S. insignis*, y C21 *S. reichembachiana*.



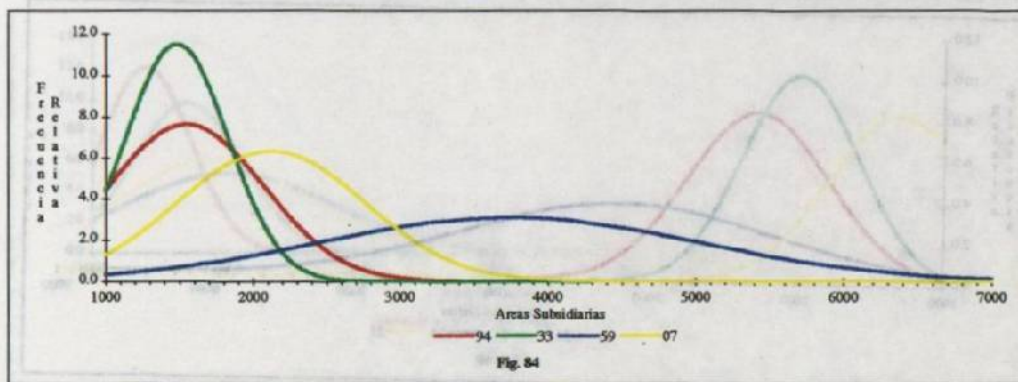
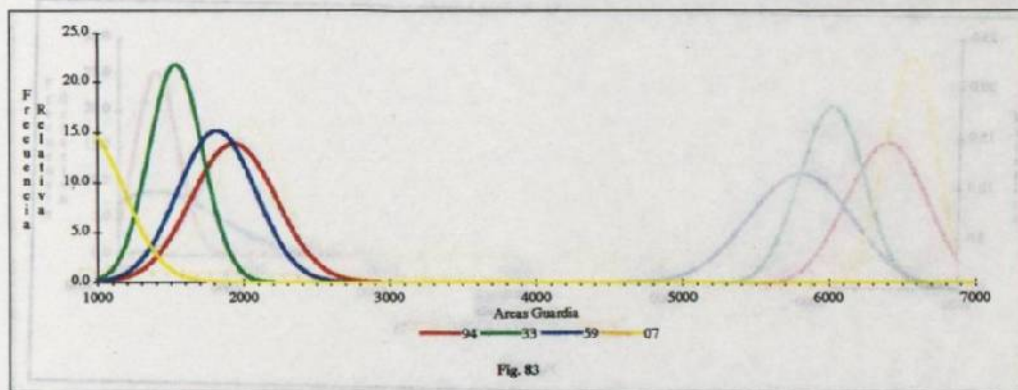
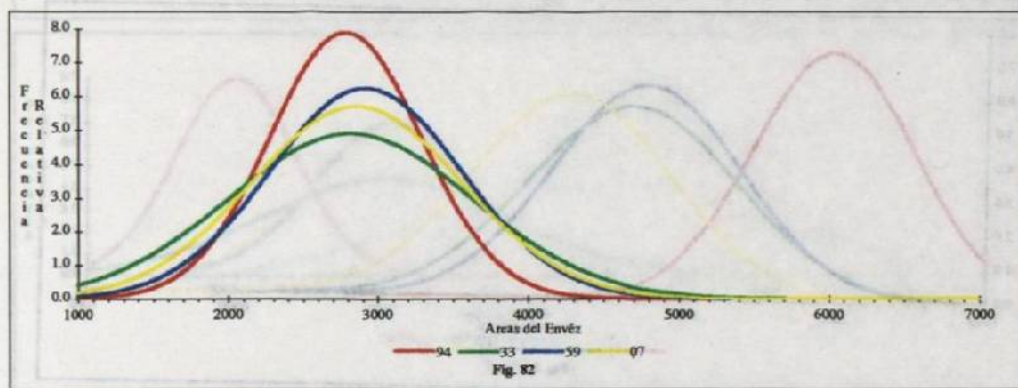
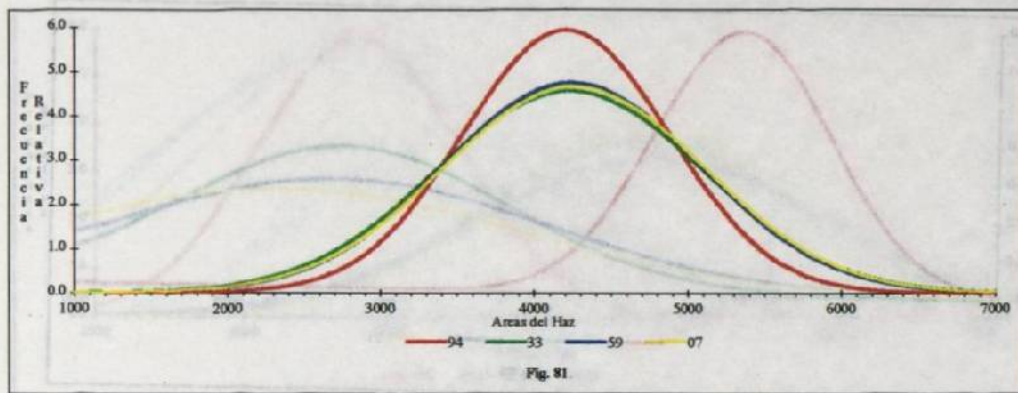
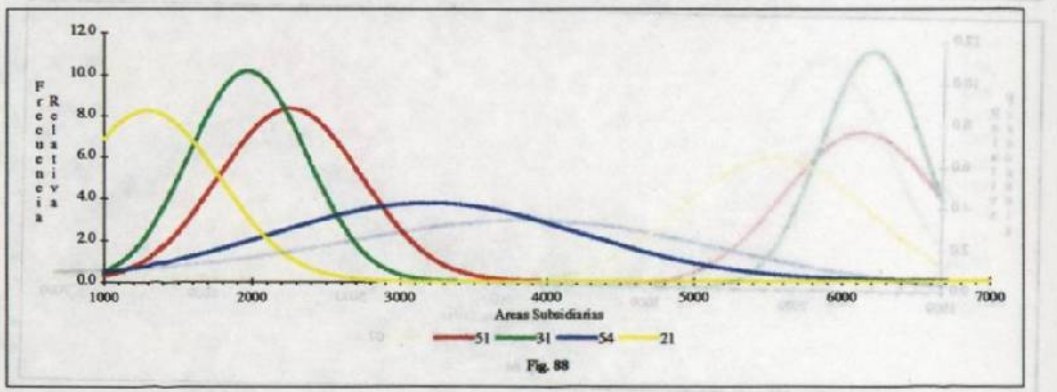
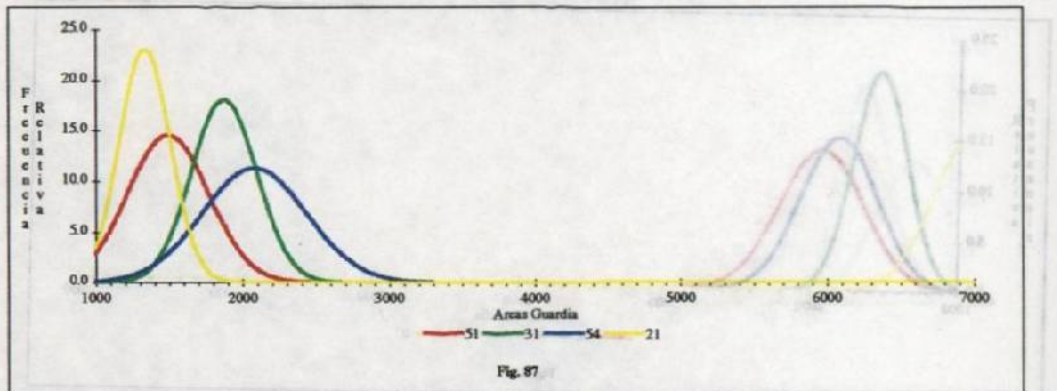
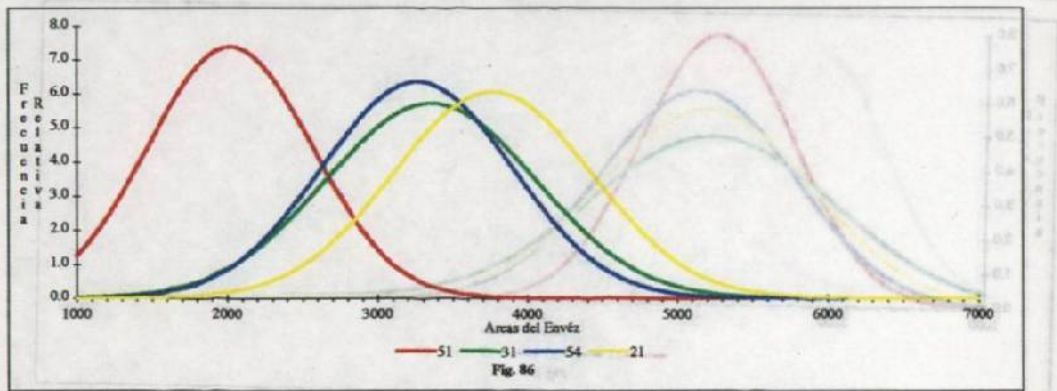
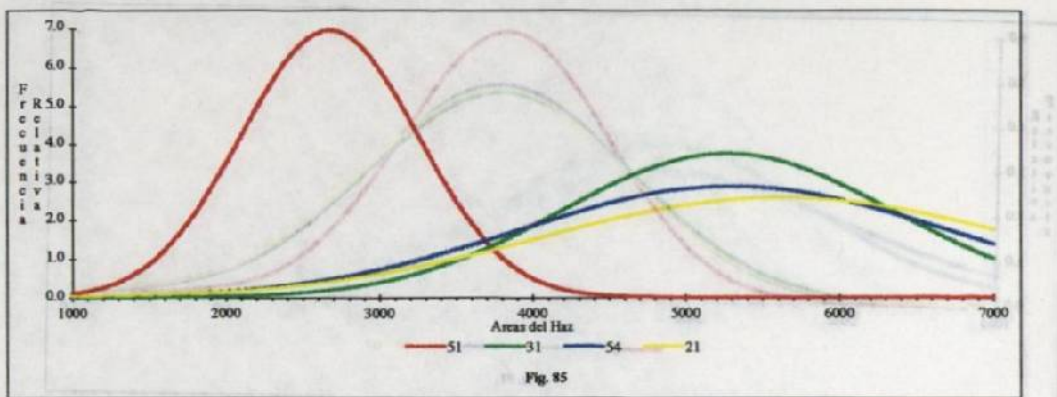


Fig. 85-88. C51 *S. intermedia*, C31 C54 *S. platyceras*, y C21 *S. reichenbachiana*.



Figs. 89-92. C04 S. *hernandezii*, C52 S. *cornuta*, y C16 C03 S. *insignis*.

