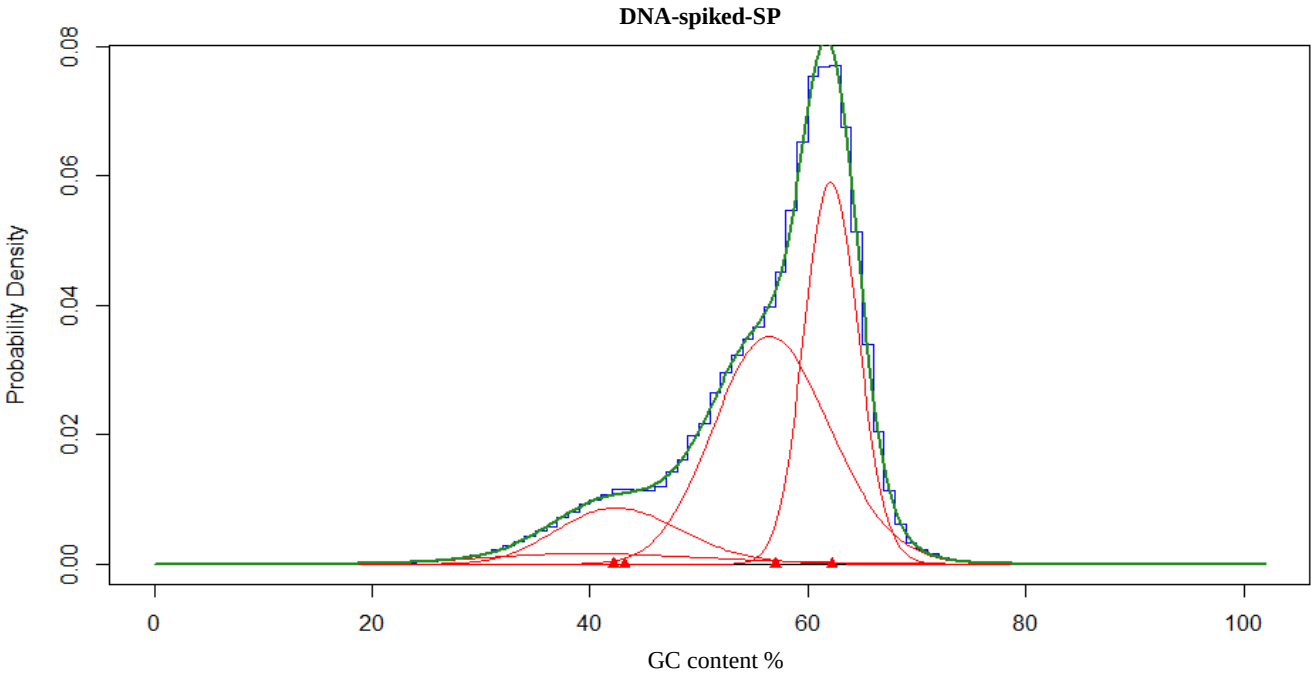
Supplement 1: Peak identification using R-package mixdist. For each sample is shown from top to bottom: the graphs, final peak statistics and R-code. The statistics show the mean GC content for a peak (mu), the SD of the peak (sigma) and proportion of each peak of the total graph (pi). In the graph, ▲ depicts mu, the red lines are the individuals peaks, the green line is the combined peak and in blue is the original histogram



Statistics:

Parameters:

	pi	mu	sigma
1	0.041	42.14	10.31
2	0.124	43.15	5.73
3	0.470	57.00	5.34
4	0.366	62.20	2.47

Standard Errors:

	pi.se	mu.se	sigma.se
1	0.333	29.126	13.351
2	0.449	12.419	12.124
3	0.204	4.183	1.558
4	0.202	0.850	0.811

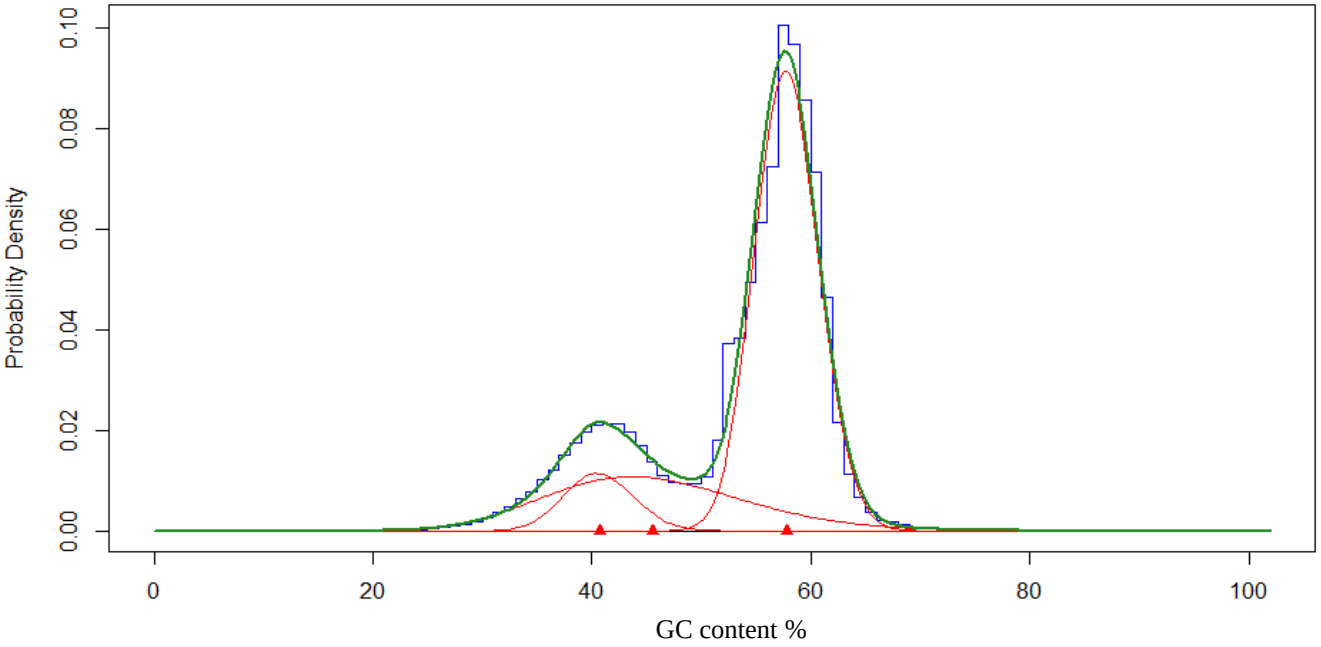
Analysis of Variance Table

	Df	Chisq	Pr(>Chisq)
Residuals	58	0.1012	1

R-code:

```
d <- as.mixdata(d)
plot(d)
fitd1 <-mix(d,mixparam(c(41,42,53,62),8),"gamma",mixconstr(consigma="NONE"))
summary(fitd1)
plot(fitd1)
fitd2 <- mix(d,coef(fitd1),"gamma")
fitd2 <- mix(d,coef(fitd1),"gamma",iterlim=150)
summary(fitd2)
plot(fitd2)
```

1 x MDA



Statistics:

Parameters:

	pi	mu	sigma
1	0.09132	40.71	3.192
2	0.24085	45.53	9.064
3	0.66783	57.83	2.913

Standard Errors:

	pi.se	mu.se	sigma.se
1	0.13103	2.3773	2.976
2	0.17757	3.4903	2.1398
3	0.07988	0.4525	0.4042

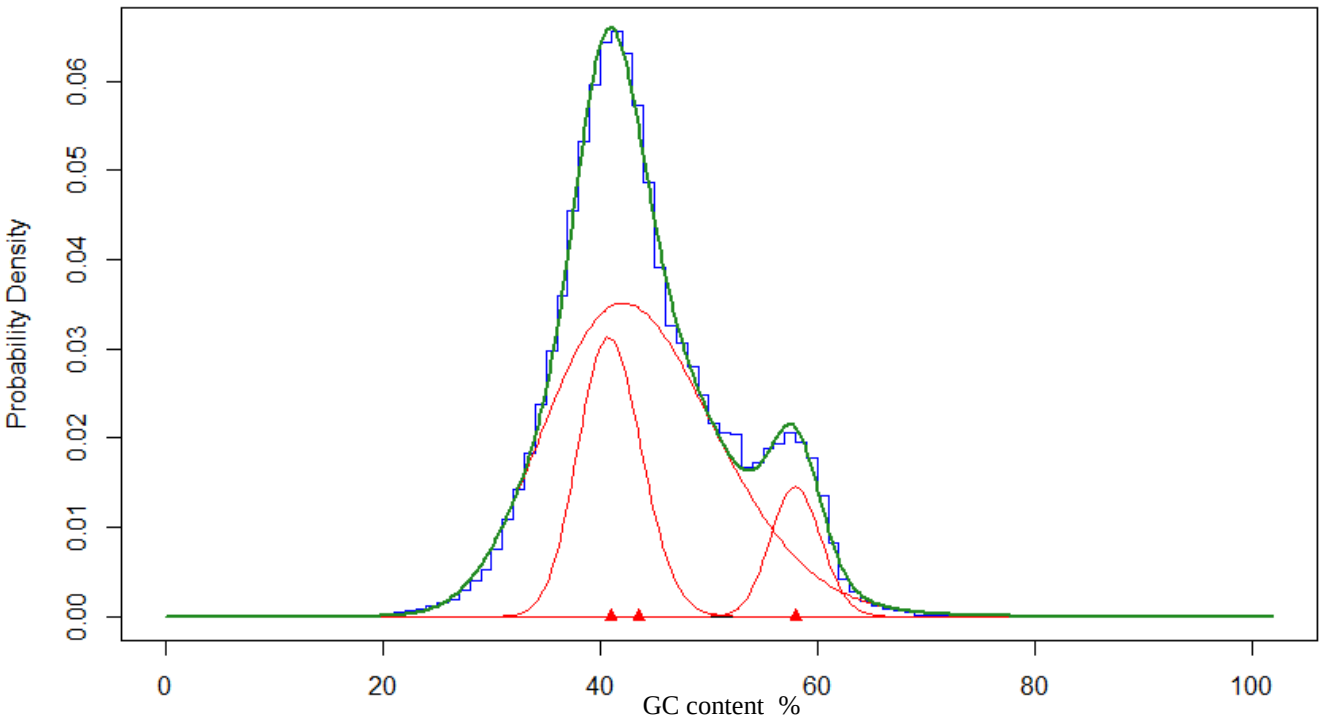
Analysis of Variance Table

	Df	Chisq	Pr(>Chisq)
Residuals	62	2.1794	1

R-code:

```
d <- as.mixdata(d)
plot(d)
fitd1 <-mix(d,mixparam(c(41,42,53,62),8),"gamma",mixconstr(consigma="NONE"))
summary(fitd1)
plot(fitd1)
fitd2 <- mix(d,coef(fitd1),"gamma")
fitd2 <- mix(d,coef(fitd1),"gamma",iterlim=150)
summary(fitd2)
plot(fitd2)
```

2 x MDA



Statistics:

Parameters:

	pi	mu	sigma
1	0.2277	40.98	2.907
2	0.6877	43.58	7.917
3	0.0846	58.05	2.325

Standard Errors:

	pi.se	mu.se	sigma.se
1	0.2138	1.429	1.865
2	0.2294	1.649	1.251
3	0.0611	1.639	1.5

Analysis of Variance Table

	Df	Chisq	Pr(>Chisq)
Residuals	58	1.0566	1

R-code:

```
d <- as.mixdata(d)
plot(d)
fitd1 <-mix(d,mixparam(c(41,42,53,62),8),"gamma",mixconstr(consigma="NONE"))
summary(fitd1)
plot(fitd1)
fitd2 <- mix(d,coef(fitd1),"gamma")
fitd2 <- mix(d,coef(fitd1),"gamma",iterlim=150)
summary(fitd2)
plot(fitd2)
```