

ESTUDIO COMPARATIVO DE LOS COMPONENTES VEGETALES PRESENTES EN HECES DE HERBÍVOROS, MEDIANTE TÉCNICAS MICROHISTOLÓGICAS Y MOLECULARES.

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Técnicas moleculares:

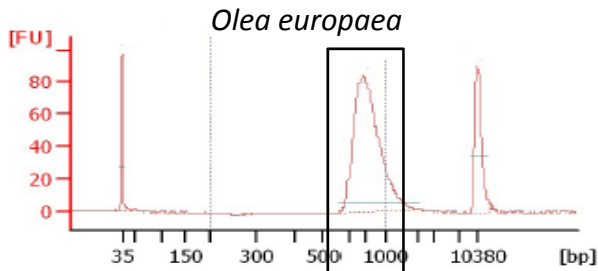
- ✓ Extracción de ADN a partir de heces y de plantas potencialmente ingeridas.
- ✓ Amplificación por PCR del gen *trnL(UAA)* de cloroplasto.
- ✓ Identificación:
 - Secuenciación amplicones y comparación con bases de datos (*DNA barcoding*)
 - Según el tamaño del amplicón: Bioanalyzer (Agilent), electroforesis capilar

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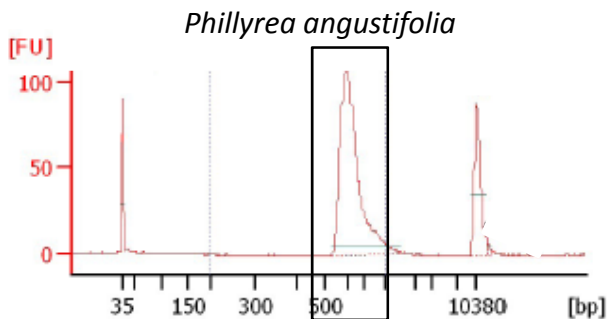
Smilax aspera      AA TGGGCAATCCTGAGCCAAATC TTTAATTTG-----ATAAAATAGG--GGTTTA-ATT
Chamaerops_humi  AA TGGGCAATCCTGAGCCAAATC TTTAATTTG-----ATAAAACAAG--GGTTTCTATT
Cneorum_tricocc  AA TGGGCAATCCTGAGCCAAATC C-AGTTTTC-----CAAGAACAGACAAGGGTTCAG-
Pistacia_lentis  AA TGGGCAATCCTGAGCCAAATC C-TATTTTATGAGAACAATAACAAACAAGGGTTCAG-
Phillyrea_angus  AA TGGGCAATCCTGAGCCAAATC C-TGTTTTT-----CCAAAACAAA-----GGTTCA--
Phillyrea_latif  AA TGGGCAATCCTGAGCCAAATC C-TGTTTTT-----CCAAAACAAA-----GGTTCA--
Rosmarinus_offi  AA TGGGCAATCCTGAGCCAAATC C-TGTTTTT-----TCAAAACAAA-----GGTTCAA-
Olea_europaea    AA TGGGCAATCCTGAGCCAAATC C-TGTTTTT-----CCAAAACAAA-----GGTTCA--
Quercus_ilex     AA TGGGCAATCCTGAGCCAAATC C-TATTTTA-----CGAAAACAAATAAGGGTTCAGA
Buxus sempervir  AA TGGGCAATCCTGAGCCAAATC C-TGTTTTT-----AGAAAACAAACAAGGGTTCAG-
Brachypodium_ph  AA AGGGCAATCCTGAGCCAAATC CGTGTTTTG-----AGAAAACAAG---GGTTCTCG
Ampelodesmos_ma  AA AGGGCAATCCTGAGCCAAATC CGTGTTTTG-----AGAAAACAAG---CGTTCTCG
Brachypodium_di  AA AGGGCAATCCTGAGCCAAATC CGTGTTTTG-----AGAAAACAAG---GGTTCTCG
Asphodelus_aest  AA TGGGCAATCCTGAGCCAAATC TTTTTTTT TTTTGTG-AAAAACTGATTAATCGTACAA-
Juniperus_oxyce  AA TGGGCAATCCTGAGCCAAATC CGATTTCTA-----GAGACAAATAGTTTCCTTTCCG--
consensus       AA TGGGCAATCCTGAGCCAAATC c-taTTTt-----AaAacaag-----gtcca--

Smilax aspera    TATAAACTAGAAATCAAAAAGGGATAGGTGCAGAGACTCAATGGAAG----
Chamaerops_humi TATAAACTAGAAATAAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Cneorum_tricocc  -----AAAGCTAAAAAG-GGATAGGTGCAGAGACTCAATGGAAG----
Pistacia_lentis  -----AACGGAGAAAAGAGGATAGGTGCAGAGACTCAATGGAAG----
Phillyrea_angus  -----GAAAGAAAAAAGGATAGGTGCAGAGACTCAATGGAAGCTGT
Phillyrea_latif  -----GAAAGAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Rosmarinus_offi  -----AAAACGAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Olea_europaea    -----GAAAGAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Quercus_ilex     AGCAAAGCGAGAATAAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Buxus sempervir  ---CAAGCGAGAATCAAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Brachypodium_ph AA-CTAGAATCCAAAAGGAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Ampelodesmos_ma AA-CTAGA-----GGATAGGTGCAGAGACTCAATGGAAG----
Brachypodium_di AA-CTAGAATCCAAAAGGAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Asphodelus_aest  -----GAATAAAAAAAGGATAGGTGCAGAGACTCAATGGAAG----
Juniperus_oxyce  -----AGAACGGGATAGGTGCAGAGACTCAACGGAAG----
consensus       -----a-aaaaagGGATAGGTGCAGAGACTCAATGGAAG----
    
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Determinación del tamaño de los amplicones mediante un DNA Labchip en Bioanalyzer 2100 (Agilent Technologies)



Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125,00	5.411,3	Lower Marker
2	695	441,58	962,2	
3	10.380	75,00	10,9	Upper Marker



Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125,00	5.411,3	Lower Marker
2	504	432,41	1.103,3	
3	10.380	75,00	10,9	Upper Marker
4	12.883	0,00	0,0	

Especie vegetal	Longitud (pb)
<i>Ampelodesmos mauritanica</i>	781
<i>Arbutus unedo</i>	707
<i>Brachipodium retusum</i>	879
<i>Buxus balearica</i>	685
<i>Chamaerops humilis</i>	666
<i>Cistus albidus</i>	909
<i>Cistus monspeliensis</i>	894
<i>Cistus salvifolius</i>	937
<i>Cneorum tricocum</i>	843
<i>Ephedra fragilis</i>	396
<i>Erica arborea</i>	1427
<i>Erica multiflora</i>	1306
<i>Genista lucida</i>	1269
<i>Juniperus oxicedrus</i>	391
<i>Olea europaea</i>	695
<i>Phillyrea angustifolia</i>	594
<i>Pinus halepensis</i>	652
<i>Pistacia lentiscus</i>	993
<i>Quercus ilex</i>	421
<i>Rosmarinus officinalis</i>	573
<i>Smilax aspera</i>	1004



Muestra heces, origen Bunyola, invierno 2012

