

## SUPPORTING INFORMATION

**A new striking and critically endangered species of *Nasa* (Loasaceae, Cornales) from North Peru**

**Appendix.** List of taxa sampled for the molecular analyses with their respective voucher specimen (herbarium acronyms in parentheses), geographic origins and GenBank accession numbers. Dashes (–) indicate missing data.

| Taxon  | Voucher                                    | County of Origin | GenBank Codes    |             |                  |              |
|--|--|------------------|------------------|-------------|------------------|--------------|
|  |  |                  | <i>trnL-trnF</i> | <i>matK</i> | <i>trnS-trnG</i> | <i>rps16</i> |
| <i>Aosa grandis</i><br>(Standl.)<br>R.H.Acuña &<br>Weigend | <i>Acuña et al.</i><br>1264 (USJ)          | Costa Rica       | MF972120         | MF972100    | MF972129         | MF972110     |
| <i>Aosa uleana</i><br>Weigend                              | <i>Joßberger</i> 342<br>(BONN)             | Brazil           | KY286998         | KY286728    | KY286908         | KY286818     |
| <i>Blumenbachia catharinensis</i><br>Urb. & Gilg           | <i>Trevisan</i> 1723<br>(BONN)             | Brazil           | KY287006         | KY286736    | KY286916         | KY286826     |
| <i>Blumenbachia sylvestris</i><br>Poepp.                   | <i>Cocucci &amp; Sérsic</i> 4780<br>(CORD) | Argentina        | KY286969         | KY286700    | KY286879         | KY286789     |
| <i>Caiophora arechavaletae</i><br>(Urb.) Urb.              | <i>Weigend</i> 9330<br>(BSB)               | Brazil           | KY286970         | KY286701    | KY286880         | KY286790     |
| <i>Caiophora hibiscifolia</i><br>(Griseb.) Urb.<br>& Gilg  | <i>Ackermann</i><br>1103 (BONN)            | Argentina        | KY286988         | KY286719    | KY286898         | KY286808     |
| <i>Caiophora pulchella</i><br>& Gilg                       | <i>Cocucci &amp; Sérsic</i> 4840<br>(CORD) | Argentina        | KY286976         | KY286707    | KY286886         | KY286796     |
| <i>Cevallia simuata</i> Lag.                               | <i>Spencer</i> 418<br>(RSA)                | Mexico           | MK333074         | –           | MK333040         | MK333006     |
| <i>Cevallia simuata</i> Lag.                               | <i>Waterbrook</i><br>175 (WS)              | Unknown          | –                | AF503301    | –                | –            |
| <i>Cornus</i>  | <i>Acuña et al.</i>                        | Costa Rica       | MK333069         | MK332968    | MK333035         | MK333001     |

|                      |                       |              |               |          |          |          |          |
|----------------------|-----------------------|--------------|---------------|----------|----------|----------|----------|
| <i>peruviana</i>     | 1230 (USJ)            |              |               |          |          |          |          |
| J.F.Macbr.           |                       |              |               |          |          |          |          |
| <i>Cornus</i>        | <i>Xiang</i>          | 02-02        | Costa Rica    | -        | -        | -        | -        |
| <i>peruviana</i>     | (NCSC)                |              |               |          |          |          |          |
| J.F.Macbr.           |                       |              |               |          |          |          |          |
| <i>Eucnide urens</i> | <i>Weigend</i>        | 9153         | United States | KY286996 | KY286726 | KY286906 | KY286816 |
| Parry ex Coville     | (BSB)                 |              |               |          |          |          |          |
| <i>Fendlera</i>      | <i>Acuña</i>          | 1220         | Germany       | MK333067 | MK332966 | MK333033 | MK332999 |
| <i>rupicola</i>      | (BONN) (cultivated)   |              |               |          |          |          |          |
| Engelm. &            |                       |              |               |          |          |          |          |
| A.Gray               |                       |              |               |          |          |          |          |
| <i>Fendlera</i>      | <i>Hinton et al.</i>  |              | Unknown       | -        | -        | -        | -        |
| <i>linearis</i>      | Rehder 16566 (US)     |              |               |          |          |          |          |
| <i>Grausa</i>        | <i>Grau s.n.</i>      | (M)          | Chile         | KY286957 | KY286688 | KY286867 | KY286777 |
| <i>micrantha</i>     | (Poepp.)              |              |               |          |          |          |          |
| Weigend &            |                       |              |               |          |          |          |          |
| R.H.Acuña            |                       |              |               |          |          |          |          |
| <i>Gronovia</i>      | <i>Jiménez &amp;</i>  |              | Costa Rica    | MK333068 | MK332967 | MK333034 | MK333000 |
| <i>scandens</i>      | <i>Majure</i>         | 2895         |               |          |          |          |          |
|                      | (USJ)                 |              |               |          |          |          |          |
| <i>Gronovia</i>      | <i>Weigend et al.</i> |              | Peru          | -        | -        | -        | -        |
| <i>scandens</i>      | L. 8522 (BSB)         |              |               |          |          |          |          |
| <i>Huidobria</i>     | <i>Luebert &amp;</i>  |              | Chile         | MK333072 | MK332971 | MK333038 | MK333004 |
| <i>fruticosa</i>     | <i>Phil. Moreira</i>  | 2991         |               |          |          |          |          |
|                      | (SGO)                 |              |               |          |          |          |          |
| <i>Huidobria</i>     | <i>Dillon</i>         | 8034 (F)     | Chile         | -        | -        | -        | -        |
| <i>fruticosa</i>     | Phil.                 |              |               |          |          |          |          |
| <i>Hydrangea</i>     | <i>Acuña et al.</i>   |              | Costa Rica    | MK333070 | MK332969 | MK333036 | MK333002 |
| <i>oerstedii</i>     | Briq. 1231 (USJ)      |              |               |          |          |          |          |
| <i>Hydrangea</i>     | <i>Goetghebeur</i>    |              | Belgium       | -        | -        | -        | -        |
| <i>seemannii</i>     | x                     | 12381 (GENT) | (cultivated)  |          |          |          |          |
| <i>peruviana.</i>    |                       |              |               |          |          |          |          |
| <i>Kissenia</i>      | <i>Greuter</i>        | 21627        | South Africa  | KY286944 | KY286675 | KY286854 | KY286764 |
| <i>capensis</i>      | Endl. (B)             |              |               |          |          |          |          |
| <i>Klaprothia</i>    | <i>Weigend et al.</i> |              | Peru          | MK333066 | MK332965 | MK333032 | MK332998 |
| <i>fasciculata</i>   | 7553 (B)              |              |               |          |          |          |          |
| (C.Presl) Poston     |                       |              |               |          |          |          |          |

|                         |                          |           |          |          |          |          |
|-------------------------|--------------------------|-----------|----------|----------|----------|----------|
| <i>Klaprothia</i>       | <i>Weigend et al.</i>    | Peru      | -        | -        | -        | -        |
| <i>fasciculata</i>      | 5362 (BSB)               |           |          |          |          |          |
| (C.Presl) Poston        |                          |           |          |          |          |          |
| <i>Loasa</i>            | <i>Weigend et al.</i>    | Argentina | KY286959 | KY286690 | KY286869 | KY286779 |
| <i>acanthifolia</i>     | 6924 (M)                 |           |          |          |          |          |
| Desr.                   |                          |           |          |          |          |          |
| <i>Loasa acerifolia</i> | <i>Weigend et al.</i>    | Argentina | KY286937 | KY286669 | KY286847 | KY286757 |
| Dombey ex               | 6848 (M)                 |           |          |          |          |          |
| Juss.                   |                          |           |          |          |          |          |
| <i>Mentzelia</i>        | <i>Weigend et al.</i>    | Argentina | KY286921 | KY286653 | KY286831 | KY286741 |
| <i>albescens</i>        | 6865 (BSB)               |           |          |          |          |          |
| (Gillies ex Arn.)       |                          |           |          |          |          |          |
| Benth. &                |                          |           |          |          |          |          |
| Hook.f. ex              |                          |           |          |          |          |          |
| Griseb.                 |                          |           |          |          |          |          |
| <i>Mentzelia</i>        | <i>Weigend et al.</i>    | Peru      | MF972116 | MF972096 | MF972125 | MF972106 |
| <i>aspera</i> L.        | 8421 (B)                 |           |          |          |          |          |
| <i>Nasa</i>             | <i>Weigend &amp;</i>     | Ecuador   | KY286947 | KY286678 | KY286857 | KY286767 |
| <i>aequatoriana</i>     | <i>Jaramillo</i>         |           |          |          |          |          |
| (Urb. & Gilg)           | 3937 (F)                 |           |          |          |          |          |
| Weigend                 |                          |           |          |          |          |          |
| <i>Nasa</i>             | <i>Weigend s.n.</i>      | Colombia  | MK333053 | MK332954 | MK333019 | MK332985 |
| <i>argemonoides</i>     | (M)                      |           |          |          |          |          |
| (Juss.) Weigend         |                          |           |          |          |          |          |
| <i>Nasa basilica</i>    | <i>Weigend &amp; al.</i> | Peru      | KY286935 | KY286667 | KY286845 | KY286755 |
| T.Henning &             | 97/370 (F)               |           |          |          |          |          |
| Weigend                 |                          |           |          |          |          |          |
| <i>Nasa bicornuta</i>   | <i>Weigend et al.</i>    | Peru      | MK333060 | MK332960 | MK333026 | MK332992 |
| (Weigend)               | 8600 (MO)                |           |          |          |          |          |
| Weigend                 |                          |           |          |          |          |          |
| <i>Nasa</i>             | <i>Weigend &amp;</i>     | Peru      | MK333042 | MK332942 | MK333008 | MK332974 |
| <i>carunculata</i>      | <i>Weigend</i>           |           |          |          |          |          |
| (Urb. & Gilg)           | 2000/363                 |           |          |          |          |          |
| Weigend                 | (HUSA)                   |           |          |          |          |          |
| <i>Nasa</i>             | <i>Weigend et al.</i>    | Peru      | MF972162 | MF972134 | MF972176 | MF972148 |
| <i>chenopodiifolia</i>  | 7685 (M)                 |           |          |          |          |          |
| (Desr.)                 |                          |           |          |          |          |          |
| Weigend                 |                          |           |          |          |          |          |

|                          |                      |         |          |          |          |          |
|--------------------------|----------------------|---------|----------|----------|----------|----------|
| <i>Nasa driesslei</i>    | Henning & Weigend    | Peru    | KY286917 | KY286649 | KY286827 | KY286737 |
|                          | Schneider 243 (BSB)  |         |          |          |          |          |
| <i>Nasa dyeri</i>        | Dostert & Weigend    | Peru    | MF972165 | MF972137 | MF972179 | MF972151 |
| subsp. <i>australis</i>  | (MSB)                |         |          |          |          |          |
| <i>Nasa formosissima</i> | Henning & Weigend    | Peru    | MK333065 | –        | MK333031 | MK332997 |
|                          | Brokamp 13 (B)       |         |          |          |          |          |
| <i>Nasa herzogii</i>     | Müller & Weigend     | Bolivia | MK333051 | MK332952 | MK333017 | MK332983 |
| (Urb. & Gilg)            | Heinrichs 6596 (LPB) |         |          |          |          |          |
| <i>Nasa hornii</i>       | Weigend & Weigend    | Ecuador | MK333056 | MK332956 | MK333022 | MK332988 |
| (Weigend)                | Horn 3815 (M)        |         |          |          |          |          |
| <i>Nasa humboldtiana</i> | Henning & Weigend    | Peru    | MK333061 | MK332961 | MK333027 | MK332993 |
| subsp. <i>obliqua</i>    | Schulz 40 (BSB)      |         |          |          |          |          |
|                          | Dostert & Weigend    |         |          |          |          |          |
| <i>Nasa humboldtiana</i> | Dostert & Weigend    | Peru    | –        | –        | –        | –        |
| subsp. <i>obliqua</i>    | (M)                  |         |          |          |          |          |
|                          | Dostert & Weigend    |         |          |          |          |          |
| <i>Nasa insignis</i>     | Weigend & Weigend    | Peru    | MK333059 | MK332959 | MK333025 | MK332991 |
|                          | 7563 (M)             |         |          |          |          |          |
|                          | E.Rodr.              |         |          |          |          |          |
| <i>Nasa insignis</i>     | Dostert & Weigend    | Peru    | –        | –        | –        | –        |
|                          | 98/161 (M)           |         |          |          |          |          |
|                          | E.Rodr.              |         |          |          |          |          |
| <i>Nasa jungifolia</i>   | Weigend & Weigend    | Ecuador | MK333055 | MK332948 | MK333021 | MK332987 |
| (Weigend)                | Horn 3838 (M)        |         |          |          |          |          |
|                          | Weigend              |         |          |          |          |          |
| <i>Nasa laxa</i>         | Henning & Weigend    | Peru    | MK333062 | MK332962 | MK333028 | MK332994 |
| (J.F.Macbr.)             | Schulz 29 (B)        |         |          |          |          |          |
|                          | Weigend              |         |          |          |          |          |

---

|   |                                     |          |          |          |          |          |
|---|-------------------------------------|----------|----------|----------|----------|----------|
| <i>Nasa laxa</i><br>(J.F.Macbr.)<br>Weigend   | Weigend et al.<br>98/547 (F)        | Peru     | -        | -        | -        | -        |
| <i>Nasa loxensis</i><br>(Kunth)<br>Weigend  | Grant & Struwe<br>01-4063 (BSB)     | Ecuador  | MK333044 | MK332944 | MK333010 | MK332976 |
| <i>Nasa macrothyrsa</i><br>(Urb. & Gilg)<br>Weigend                                 | Weigend et al.<br>97/s.n. (M)       | Peru     | KY286934 | KY286666 | KY286844 | KY286754 |
| <i>Nasa magnifica</i><br>(Urb. & Gilg)<br>Weigend                                   | Weigend et al.<br>97/468 (F)        | Peru     | MK333047 | MK332949 | MK333013 | MK332979 |
| <i>Nasa moroensis</i><br>Weigend  | Weigend 7694<br>(B)                 | Peru     | MF972161 | MF972133 | MF972175 | MF972147 |
| <i>Nasa otuzcensis</i><br>Weigend & E.Rodr.   | Rodríguez et al.<br>2374 (HUT)      | Peru     | MK333058 | MK332958 | MK333024 | MK332990 |
| <i>Nasa picta</i><br>(Hook.)<br>Molinari  | Henning & Schulz<br>33<br>(BSB)     | Peru     | MK333064 | MK332964 | MK333030 | MK332996 |
| <i>Nasa picta</i><br>(Hook.)<br>Molinari  | Henning & Schneider<br>2 (B)        | Peru     | -        | -        | -        | -        |
| <i>Nasa poissoniana</i><br>subsp.<br><i>poissoniana</i><br>(Urb. & Gilg)<br>Weigend | Weigend & Weigend<br>00/208 (NY)    | Peru     | KY286918 | KY286650 | KY286828 | KY286738 |
| <i>Nasa pongalamesa</i><br>Weigend  | Weigend et al.<br>2000/752<br>(BSB) | Peru     | MF972114 | MF972094 | MF972123 | MF972104 |
| <i>Nasa profundiserrata</i><br>Weigend  | Weigend et al.<br>3626 (M)          | Colombia | MK333057 | MK332957 | MK333023 | MK332989 |
| <i>Nasa pteridophylla</i>   | Weigend et al.<br>97/307C (M)       | Peru     | MK333043 | MK332943 | MK333009 | MK332975 |

---

---

subsp.

*pteridophylla*

Weigend &

Dostert

*Nasa raimondii* Weigend & Peru MF972113 MF972093 MF972122 MF972103

(Standl. & Weigend

F.A.Barkley) 2000/289

Weigend (HUSA)

*Nasa* Weigend et al. Peru MK333050 MK332951 MK333016 MK332982

*ranunculifolia* 97/466 (F)

subsp.

*cymbopetala*

(Urb. & Gilg)

Weigend

*Nasa rubrastra* Schwerdtfeger Ecuador MK333054 MK332955 MK333020 MK332986

(Weigend) 22207 (GOET)

Weigend

*Nasa sanchezii* Henning & Peru MK333045 MK332945 MK333011 MK332977

T.Henning & Schneider 242

Weigend (B)

*Nasa solata* Weigend & Peru MK333041 MK332941 MK333007 MK332973

(J.F.Macbr.) Dostert 98/259

Weigend (M)

*Nasa* sp. García 333 Peru MK333073 MK332972 MK333039 MK333005

Laquipampa. (HUT)

*Nasa speciosa* Acuña et al. Costa Rica MF972119 MF972099 MF972128 MF972109

(Donn.Sm.) 1261 (USJ)

Weigend

*Nasa triphylla* Weigend & Peru MF972164 MF972136 MF972178 MF972150

subsp. *flavipes* Dostert 98/203

Weigend & (M)

Dostert

*Nasa triphylla* Acuña et al. Costa Rica MF972117 MF972097 MF972126 MF972107

subsp. *rudis* 1211 (BONN)

(Benth.)

Weigend

*Nasa triphylla* Weigend & Ecuador MF972170 MF972142 MF972184 MF972156

subsp. *triphylla* Brokamp 9098

---

---

|                              |                                |                            |          |          |          |          |  |
|------------------------------|--------------------------------|----------------------------|----------|----------|----------|----------|--|
| (Juss.) Weigend              | (B)                            |                            |          |          |          |          |  |
| <i>Nasa tulipadiaboli</i>    | Weigend et al. 01/443 (B)      | Peru                       | MK333048 | MK332947 | MK333014 | MK332980 |  |
| T.Henning & Weigend          |                                |                            |          |          |          |          |  |
| <i>Nasa urens</i>            | Weigend & Förther 97/542 (USM) | Peru                       | MK333046 | MK332946 | MK333012 | MK332978 |  |
| (Jacq.) Weigend              |                                |                            |          |          |          |          |  |
| <i>Nasa urentivelutina</i>   | Henning & Brokamp 9 (B)        | Peru                       | MK333063 | MK332963 | MK333029 | MK332995 |  |
| Weigend                      |                                |                            |          |          |          |          |  |
| <i>Nasa venezuelensis</i>    | Weigend 3604 (M)               | Venezuela                  | MK333052 | MK332953 | MK333018 | MK332984 |  |
| (Steyerm.)                   |                                |                            |          |          |          |          |  |
| Weigend                      |                                |                            |          |          |          |          |  |
| <i>Nasa weberbaueri</i>      | Weigend & Dostert 98/261       | Peru                       | MK333049 | MK332950 | MK333015 | MK332981 |  |
| (Urb. & Gilg)                | (F)                            |                            |          |          |          |          |  |
| Weigend                      |                                |                            |          |          |          |          |  |
| <i>Nyssa sylvatica</i>       | ZJW374-9 (Unknown)             | United States (cultivated) | -        | -        | -        | -        |  |
| Marshall                     |                                |                            |          |          |          |          |  |
| <i>Nyssa talamancana</i>     | Acuña et al. 1237 (USJ)        | Costa Rica                 | MK333071 | MK332970 | MK333037 | MK333003 |  |
| Hammel & N.Zamora            |                                |                            |          |          |          |          |  |
| <i>Pinnasa bergii</i>        | Weigend 6800 (BSB)             | Argentina                  | KY286920 | KY286652 | KY286830 | KY286740 |  |
| (Hieron.)                    |                                |                            |          |          |          |          |  |
| Weigend & R.H.Acuña          |                                |                            |          |          |          |          |  |
| <i>Pinnasa nana</i>          | Weigend et al. 7080 (BSB)      | Argentina                  | KY286980 | KY286711 | KY286890 | KY286800 |  |
| Phil.                        |                                |                            |          |          |          |          |  |
| <i>Plakothira parviflora</i> | Weigend s.n. (BSB)             | France (Marquesas Islands) | KY286926 | KY286658 | KY286836 | KY286746 |  |
| J.Florence                   |                                |                            |          |          |          |          |  |
| <i>Presliophytum incanum</i> | Weigend & Förther 97/848       | Peru                       | KY286924 | KY286656 | KY286834 | KY286744 |  |
| (Graham)                     | (F)                            |                            |          |          |          |          |  |
| Weigend                      |                                |                            |          |          |          |          |  |

---

---

|                      |                |         |          |          |          |          |
|----------------------|----------------|---------|----------|----------|----------|----------|
| <i>Presliophytum</i> | Ehrhardt       | Chile   | KY286945 | KY286676 | KY286855 | KY286765 |
| <i>sessiliflorum</i> | s.n.(M)        |         |          |          |          |          |
| (Phil.)              |                |         |          |          |          |          |
| R.H.Acuña            | &              |         |          |          |          |          |
| Weigend              |                |         |          |          |          |          |
| <i>Scyphanthus</i>   | Grau           | & Chile | KY286958 | KY286689 | KY286868 | KY286778 |
| <i>elegans</i> Sweet | Ehrhardt 2-093 |         |          |          |          |          |
|                      | (M)            |         |          |          |          |          |

---