**Table S2.** Shared nuITS1 haplotypes among all 790 individuals of *B. calyciflorus* complex.

| Sampling location | Shared hapltype | Individuals |
| --- | --- | --- |
| Lake Yunlong | YISH1 | YL05\_13a, YL05\_4a |
| YISH2 | YL07\_20, YL07\_23, YL07\_29, YL07\_39 |
| YISH3 | YL08\_11, YL08\_20, YL08\_48 |
| YISH4 | YL10\_18, YL10\_25, YL10\_29 |
| YISH5 | YL05\_34, YL06\_29, YL07\_4, YL07\_40, YL08\_1, YL08\_13, YL08\_14, YL08\_2, |
|  | YL08\_21, YL08\_25, YL08\_27, YL08\_28, YL08\_29, YL08\_3, YL08\_31, YL08\_32, |
|  | YL08\_35, YL08\_38, YL08\_47, YL08\_5, YL08\_6, YL10\_22, YL10\_31, YL10\_49, |
|  | YL10\_50, YL10\_52, YL10\_55, YL10\_56, YL10\_57 |
| YISH6 | YL10\_11, YL10\_6 |
|  | YISH7 | YL01\_10, YL01\_13, YL01\_14, YL01\_34, YL02\_5, YL02\_80, YL03\_21, YL03\_5, |
|  |  | YL12\_10 |
|  | YISH8 | YL12\_38, YL12\_39, YL12\_43, YL12\_8 |
| Lake  Jinghu | JISH1 | JH05\_18, JH05\_5 |
| JISH2 | JH04\_42, JH07\_21 |
| Lake  Jinniu | HISH1 | JN03\_10, JN03\_11, JN03\_12, JN03\_13, JN03\_14, JN03\_18, JN03\_19, JN03\_21, |
|  | JN03\_22, JN03\_23, JN03\_24, JN03\_25, JN03\_27, JN03\_28, JN03\_29, JN03\_3, |
|  | JN03\_31, JN03\_32, JN03\_33, JN03\_34, JN03\_35, JN03\_36, JN03\_37, JN03\_38, |
|  | JN03\_39, JN03\_4, JN03\_40, JN03\_41, JN03\_43, JN03\_44, JN03\_47, JN03\_48, JN03\_5, |
|  | JN03\_7, JN03\_8, JN03\_9, JN04\_11, JN04\_12, JN04\_13, JN04\_19, JN04\_2, JN04\_22, |
|  | JN04\_23, JN04\_26, JN04\_3, JN04\_48, JN04\_6, JN05\_15, JN05\_26, JN06\_10, JN06\_11, |
|  | JN06\_13, JN06\_14, JN06\_16, JN06\_17, JN06\_19, JN06\_20, JN06\_21, JN06\_3, |
|  | JN06\_48, JN06\_6, JN06\_8, JN07\_27, JN10\_28, JN10\_32, JN10\_39, JN11\_14, JN11\_25, |
|  | JN11\_33, JN11\_7 |
|  | HISH2 | JN05\_12, JN05\_42 |
| Lake | JHISH1 | JH04\_9, JH06\_10, JH06\_11, JH06\_12, JH06\_13, JH06\_14, JH06\_15, JH06\_17, |
| Jinghu |  | JH06\_18, JH06\_19, JH06\_2, JH06\_20, JH06\_21, JH06\_22, JH06\_23, JH06\_24, |
| & Lake |  | JH06\_25, JH06\_26, JH06\_27, JH06\_28, JH06\_29, JH06\_3, JH06\_30, JH06\_34, |
| Jinniu |  | JH06\_35, JH06\_37, JH06\_38, JH06\_4, JH06\_40, JH06\_41, JH06\_42, JH06\_44, |
|  |  | JH06\_45, JH06\_47, JH06\_48, JH06\_6, JH06\_7, JH06\_8, JH07\_10, JH07\_11, JH07\_32, |
|  |  | JH07\_9, JH08\_1, JH08\_10, JH08\_11, JH08\_12, JH08\_14, JH08\_15, JH08\_17, JH08\_18, |
|  |  | JH08\_19, JH08\_21, JH08\_22, JH08\_23, JH08\_25, JH08\_3, JH08\_4, JH08\_5, JH08\_6, |
|  |  | JH08\_7, JH09\_11, JH09\_16, JH09\_18, JH09\_19, JH09\_23, JH09\_3, JH09\_7, JH11\_22, |
|  |  | JN01\_13, JN01\_14, JN01\_16, JN01\_2, JN01\_20, JN01\_3, JN01\_4, JN01\_5, JN01\_6, |
|  |  | JN01\_7, JN02\_22, JN02\_26, JN02\_33, JN02\_35, JN02\_40, JN02\_41, JN02\_42, |
|  |  | JN02\_46, JN02\_47, JN02\_48, JN02\_5, JN02\_6, JN05\_1, JN05\_28, JN05\_32, JN05\_40, |
|  |  | JN05\_45, JN05\_48, JN11\_11, JN11\_26, JN11\_39, JN11\_45, JN12\_11, JN12\_12, |
|  |  | JN12\_13, JN12\_14, JN12\_15, JN12\_17, JN12\_18, JN12\_19, JN12\_22, JN12\_3, JN12\_4, |
|  |  | JN12\_5, JN12\_7, JN12\_9 |
|  | JHISH2 | JH10\_1, JN03\_16, JN03\_6, JN10\_44 |
| Lake  Jinghu  & Lake Yunlong | JYISH1 | JH01\_1, JH01\_10, JH01\_11, JH01\_12, JH01\_13, JH01\_17, JH01\_18, JH01\_19, JH01\_2, |
|  | JH01\_20, JH01\_21, JH01\_27, JH01\_4, JH01\_7, JH01\_8, JH02\_11, JH02\_23, JH02\_9, |
|  | JH03\_11, JH03\_17, JH12\_12, JH12\_17, JH12\_19, JH12\_21, JH12\_25, JH12\_26, |
|  | JH12\_29, JH12\_35, YL01\_17, YL02\_50, YL02\_54, YL02\_59, YL02\_74, YL02\_83, |
|  | YL03\_11, YL03\_28, YL03\_8, YL04\_16, YL04\_20, YL04\_28, YL04\_34, YL04\_8, |
|  | YL11\_4, YL11\_5, YL11\_6 |
| JYISH2 | JH01\_16, JH01\_22, JH01\_23, JH01\_25, JH01\_5, JH02\_12, JH02\_20, JH02\_22, |
|  | JH02\_26, JH02\_3, JH02\_30, JH02\_36, JH02\_37, JH02\_39, JH02\_41, JH03\_13, |
|  | JH03\_14, JH03\_15, JH03\_18, JH03\_19, JH03\_20, JH03\_22, JH03\_28, JH03\_3, |
|  | JH03\_30, JH03\_31, JH03\_32, JH03\_36, JH03\_39, JH03\_40, JH03\_6, JH11\_17, |
|  |  | JH11\_19, JH11\_23, JH11\_25, JH11\_26, JH11\_30, JH11\_31, JH11\_32, JH12\_15, |
|  |  | JH12\_18, JH12\_23, JH12\_24, JH12\_30, JH12\_34, JH12\_36, JH12\_6, YL01\_11, |
|  |  | YL01\_15, YL01\_16, YL01\_23, YL01\_25, YL01\_26, YL01\_27, YL01\_31, YL01\_33, |
|  |  | YL01\_35, YL01\_5, YL01\_7, YL01\_8, YL01\_9, YL02\_12, YL02\_51, YL02\_55, |
|  |  | YL02\_57, YL02\_60, YL02\_65, YL02\_68, YL02\_72, YL02\_81, YL02\_84, YL02\_85, |
|  |  | YL02\_87, YL03\_1, YL03\_13, YL03\_18, YL03\_19, YL03\_2, YL03\_22, YL03\_23, |
|  |  | YL03\_29, YL03\_4, YL04\_11, YL04\_12, YL04\_14, YL04\_19, YL04\_2, YL04\_22, |
|  |  | YL04\_4, YL04\_5, YL04\_9, YL11\_3, YL12\_1, YL12\_11, YL12\_12, YL12\_13, |
|  |  | YL12\_14, YL12\_15, YL12\_16, YL12\_17, YL12\_18, YL12\_19, YL12\_2, YL12\_20, |
|  |  | YL12\_21, YL12\_22, YL12\_23, YL12\_24, YL12\_25, YL12\_26, YL12\_27, YL12\_3, |
|  |  | YL12\_31, YL12\_32, YL12\_33, YL12\_34, YL12\_36, YL12\_37, YL12\_4, YL12\_40, |
|  |  | YL12\_41, YL12\_42, YL12\_44, YL12\_48, YL12\_5, YL12\_9 |
| Lake Yunlong  & Lake  Jinniu | HYISH1 | JN01\_9, JN05\_11, JN05\_14, JN05\_2, JN05\_7, JN08\_13, JN08\_31, JN09\_16, JN09\_23, |
|  | JN09\_43, JN11\_4, YL05\_33 |
| HYISH2 | JN09\_31, YL08\_42 |
|  |  |
| Lake | AISH1 | JH04\_3, JN11\_17, JN01\_1, JN01\_10, JN01\_15, JN01\_17, JN01\_18, JN02\_1, JN02\_17, |
| Yunlong, |  | JN02\_18, JN02\_23, JN02\_25, JN02\_30, JN02\_43, JN02\_45, JN05\_16, JN05\_17, |
| Lake Jinghu |  | JN05\_19, JN05\_24, JN05\_27, JN05\_33, JN05\_44, JN05\_8, JN05\_9, JN07\_10, JN07\_16, |
| & Lake |  | JN07\_17, JN07\_25, JN07\_30, JN07\_42, JN07\_43, JN07\_44, JN08\_1, JN08\_11, |
| Jinniu |  | JN08\_17, JN08\_19, JN08\_6, JN08\_9, JN09\_14, JN09\_20, JN09\_29, JN09\_37, |
|  |  | JN09\_38, JN09\_45, JN11\_17, YL05\_26, YL05\_28, YL05\_38, YL05\_43 |
|  | AISH2 | JH04\_35, JH04\_38, JH04\_46, JH04\_47, JH05\_11, JH05\_12, JH05\_21, JH07\_12, |
|  |  | JH07\_20, JH07\_35, JH07\_43, JH07\_44, JH07\_6, JH09\_31, JH09\_4, JH10\_10, JH10\_16, |
|  |  | JH10\_3, JH10\_36, JH10\_4, JH11\_16, JN09\_18, YL06\_15, YL06\_23, YL06\_28, |
|  |  | YL06\_3, YL06\_33, YL06\_34, YL06\_35, YL06\_36, YL06\_4, YL06\_40, YL06\_43, |
|  |  | YL06\_44, YL06\_8, YL06\_9, YL07\_10, YL07\_11, YL07\_14, YL07\_15, YL07\_19, |
|  |  | YL07\_2, YL07\_27, YL07\_3, YL07\_35, YL07\_44, YL07\_45, YL07\_47, YL07\_6, |
|  |  | YL07\_7, YL07\_8, YL08\_12, YL08\_19, YL08\_36, YL08\_39, YL09\_1, YL09\_14, |
|  |  | YL09\_16, YL09\_17, YL09\_19, YL09\_2, YL09\_20, YL09\_21, YL09\_5, YL09\_6 |
|  | AISH3 | JH04\_1, JH04\_10, JH04\_11, JH04\_12, JH04\_14, JH04\_15, JH04\_16, JH04\_17, |
|  |  | JH04\_18, JH04\_2, JH04\_20, JH04\_21, JH04\_22, JH04\_23, JH04\_24, JH04\_26, |
|  |  | JH04\_27, JH04\_28, JH04\_29, JH04\_30, JH04\_33, JH04\_34, JH04\_36, JH04\_37, |
|  |  | JH04\_39, JH04\_4, JH04\_40, JH04\_41, JH04\_43, JH04\_5, JH04\_6, JH04\_7, JH05\_13, |
|  |  | JH05\_16, JH05\_17, JH05\_2, JH05\_20, JH05\_3, JH05\_6, JH05\_7, JH05\_8, JH06\_1, |
|  |  | JH06\_31, JH06\_32, JH06\_36, JH06\_9, JH07\_13, JH07\_19, JH07\_2, JH07\_24, JH07\_27, |
|  |  | JH07\_29, JH07\_3, JH07\_30, JH07\_31, JH07\_36, JH07\_38, JH07\_4, JH07\_45, JH07\_46, |
|  |  | JH07\_5, JH07\_8, JH09\_1, JH09\_10, JH09\_14, JH09\_21, JH09\_25, JH09\_29, JH09\_34, |
|  |  | JH09\_8, JH10\_11, JH10\_12, JH10\_13, JH10\_17, JH10\_18, JH10\_22, JH10\_5, JH10\_6, |
|  |  | JH11\_13, JH11\_14, JH11\_15, JH11\_18, JH11\_20, JH11\_21, JH11\_24, JN04\_20, |
|  |  | JN04\_25, JN04\_9, JN09\_24, JN09\_30, JN09\_32, JN09\_33, JN09\_35, JN09\_41, |
|  |  | JN09\_44, JN10\_30, JN10\_38, JN10\_42, JN11\_24, JN11\_31, JN11\_41, JN11\_44, |
|  |  | JN12\_16, JN12\_6, YL06\_1, YL06\_16, YL06\_18, YL06\_2, YL06\_21, YL06\_24, |
|  |  | YL06\_25, YL06\_27, YL06\_38, YL06\_39, YL06\_41, YL06\_42, YL06\_7, YL07\_26, |
|  |  | YL07\_28, YL07\_30, YL07\_34, YL08\_10, YL08\_23, YL08\_24, YL08\_26, YL08\_33, |
|  |  | YL08\_34, YL08\_37, YL08\_8, YL08\_9, YL09\_10, YL09\_11, YL09\_12, YL09\_13, |
|  |  | YL09\_15, YL09\_18, YL09\_3, YL09\_4, YL09\_8, YL09\_9 |
|  | AISH4 | JH04\_13, JN01\_12, JN02\_12, JN02\_32, JN05\_13, JN05\_21, JN05\_22, JN05\_23, |
|  |  | JN05\_25, JN05\_29, JN05\_30, JN05\_34, JN05\_35, JN05\_36, JN05\_39, JN05\_46, |
|  |  | JN05\_6, JN08\_20, JN08\_21, JN09\_11, JN09\_12, JN09\_13, JN09\_15, JN09\_21, |
|  |  | JN09\_22, JN09\_25, JN09\_39, JN09\_9, JN11\_9, YL05\_1, YL05\_10, YL05\_11, |
|  |  | YL05\_12, YL05\_13b, YL05\_14, YL05\_15, YL05\_17, YL05\_18, YL05\_19, YL05\_20, |
|  |  | YL05\_21, YL05\_23, YL05\_24, YL05\_25, YL05\_29, YL05\_30, YL05\_32, YL05\_42, |
|  |  | YL05\_46, YL05\_4b, YL05\_5, YL05\_6, YL05\_8, YL07\_22, YL08\_4, YL08\_40, |
|  |  | YL08\_41, YL08\_43, YL08\_44, YL08\_45, YL10\_35, YL10\_51, YL10\_53, YL10\_54, |
|  |  | YL10\_9, YL11\_1, YL11\_2 |

ISH represents shared haplotype, and the other codes are abbreviations for geographic locations corresponding to Supplementary Table 2.