```
Helix.........................333333333333333333...........333333333333333333     444444444444444444444444444444444444.............444444444444444444444444444444444444444444444444
Nicotiana tabacum.............UAUC  CCACGGCGCGC   UCG CUC  G CGUGCGUGACGGGUG             AA G  CCUGCCUC U CGCG CCCCG    UUC G    CGGUGCGCGCGGG    GGAC U  UGUG CUU
Atropa bella-donna............CACCGUCCCCGG  CGC   UCG   C  G CGCGCG   CGGGCG             CA G  CCUGACUC  CCGCG CCCCG    UCC G    CGGCGCGCGCGGGA   GGAA C  CGCG CUU
Borago officinalis............GGU G C C GG GC       AA UU  GUCCGA GGUAC U                  GGUUCUAACCAGUCCUC U CCU   AUUU  GU   AG GGUUUAGGGGAUU GG G   AUA G AUU
Buglossoides arvensis.........GGU G CUCCGG  C       AUCUU  G CUG UGCAGUGC                  GGGCUUGAACCGUCCUC UUCC G    CUC G    UGCGGCAUAGAGGCU CGGUG   AU GG CUU
Cynoglossum officinale........GGU G CUC GG GC       AACUU  GUCCU UG UGCCU                  GGGCUGGAUCCGUCCUC U CCCG    UUC G    CGGGGCC AGGGGAUUCGG G  UA AGG CUU
Anchusa officinalis...........GGU G CCCAGG  C       AUUUU  G CCUC GGUGC UC                  GUGUCUUAACCGUCCUC U CCC    GAUA AA    GGGGCCAAGGGGAUU GG G   AU GG AUUC
Elizaldia calycina............G UA  CCCUGG GU       AUUUU  G CCUUUGGUGC U                  GGGUCUUCCCCUUCCCC U CCCG    CUC G    CGGGGCUAUGGUGAUU GG G  AAU GG CUU
Echium leucophaeum............GUU G CCAUGG  C       AUA U  GUC G UGGCG  AC                 GAUCCUUAACCGUCCUC U CCCG    CUC G    CGGGGCUUAGGGGAU CGGAG   A AGG CUU
Echium giganteum..............GUU G CCAUGG  C       AUA U  GUC G UGGCG  AC                 GAUCCUUAACCGUCCUC U CCCG    CUC G    CGGGGCUUAGGGGAU CGGAG   A AGG CUU
Cerinthe major................GGU GUCU UGG  C       AUCUU  G CCAAUG CGC U                  GGGCUUGAAACAUCCUC UCCCCG     UC G    CGGGGCCUAGGGGAUU GUGG   AG GG CUU
Cryptantha micrantha..........GGU G CUC GG GC       AAACU  GUCC UUG UGCC                  GGGCCAGAUCCAUCCCC U CCCG    UUC G    CGGGGCCAAGGGGAU CGGGG   ACAG  CU C
Cryptantha flavoculata........GGC G C AAGG AC       AAUUC  GUCC UUG UGCC                  GGGCUAGAUCCAUCCUC U CCCG    UUC G    CGGGGC AAGGGGAUU GGGG   ACAG  CUU
Emmenanthe penduliflora......          CGGGGC     GCGA     G CCUC G                        GGGCCCGAUCCCGCCCCGU CCCG    UUC G    CGGAGCGC GGUG U  GGGG AGAC GG CUU
Phacelia rotundifolia........          CGGGGC     GCAA     G CCUC G                        GGGCCUCACCUCACCCUGU CCCG    UUC G    CGGAGCGC GGGG   CGAGG UGAC GG CUU
Nama demissum................         UCGGGGC     GAGA     G CCCC GA                       GGGCCUGCCUCCCGGC GUGCC G    UUC G    CGGAUCGC GGCG   GGGGG UGAC GG CUU
Nama aretioides..............          CGGGGC     GAGA     G CCCC G                        GGGCCUGCCUCCCGCC GCGCC G    UUC G    CGGACCGC GGCG U  GGGG CGAC GG CUU
Uricardia watsonii...........          CGGGGC     GCAA     G CCUC G                        GGACCACACCCCUCCCCGU CCCG    UCC G    CGGAUCGC GGGG UU G GG UGUC GG CUU
Wigandia urens...............          CGGGGC     GCGA     G CCUC G                        GGGCCCGCCUC UCCCCGCACC G    UCC G    CGGAGCGC GGGG   CGAGG CGAC GG CUU
Nama rothrockii..............         GCGGGGC     GCAA     G CCUC G C                      GGGCCUGCCUC UCCCUG CCCCG    UUC G    CGGAUCGC GGGU   CGAGG CGAA GG CUU
Eridictyon trichocalyx.......          CGGGGU     GCAA     G CCCC G                        GGGCCUGCCUC UCCCUGU CCCG    UUC G    CGGAUCGC GGGG   CGAGG UGAC GG CUU
Heliotropium europaeum.......          CGGGGC     GCGA     G CCCC G                     GA GGGCCGUCC UCUCCCCG ACCCG    UUC G    CGGUGCGC GGGG   CGAGG CGUC GG CUC    CUU
Heliotropium hirsutissimum...          CGGGGC     GCAA     G CCCC G                     GA GGGCCGUCC UCUCCCCG ACCCG    U C G    CGGUGCGC GGGG   CGAGG CGUC GG CUC    CUU
Heliotropium asperrimum......           GGGGC     GCGA     G CCCC                       GA GGGCCU CCCUCUCCCCGUACC G    UUC G    CGGUGCGC GGGG   CGAGG CGAC GG CUC    CUU
Heliotropium arborescens.....         UCGGGGU     GCGA     G CCCC GG                    GA GAGCCUGCCCCGUCCCCGU CCCG    UUC G    CGGUGCGC GGGG U  GAGG UGAC GG CUU    CUU
Heliotropium submolle........         UCGGGGU     GAGA     G CCCC GG                    GA GAGCCUGCCUCG CCCCGU CCCG    UUC G    CGGGGCGC GGGG U  GAGG UGAC GG CUU    CUU
Heliotropium oculatum........          CGGGGU     GCAA     G CCCC G                     GA GGGCCUACCUCAUCCU GU CCCG    UUC G    CGGAGCGC GG G U UGAGG GUGC GG CUU    CUU
Tournefortia microcalyx......          CGGGGU     GCAA     G CCCC G                     GA GGGCCUCCCACAUCCC GU CCCG    UUC G    CGGAGCGC GG G UAUGAGG AUAC GG CUU    CUU
Tournefortia luzonica........          CGGGGU     GCAA     A CCCC G                     GA GGGCCUCCCACAUCAC GU CCCG    UUC G    CGGAGCAC GG G U UGAGG GUAA GG CUU    CUU
Heliotropium krauseanum......          CGGGGC     GCAA     G CCCC G                     GA GGGCCUGCC CAUCCCCGU CCCG    UUC G    CGGAGCGC GG GC  UGAGG UGAC GG CUU    CUU
Saccellium lanceolatum.......          CGGGGC     GAAA     G CCCC G                AA A CGA GGGCCUUCCUUUCCC CG CCCCG    CUC      CGGCGCGC GGGG U   AGG CAAC GG CCU C UC
Cordia bifurcata.............          CGGGG     CACAAA      CCCU G                       GA GGGCCUUCCUCAUCCUU U CCCG    UUC G    CGGGUUGA GGGG U  GAGG CAAC GG CUU A UC
Cordia lenis.................          CGGGGC     ACAA     G CCCC G                     GA GGGCCUUCCUCAUCCUU U CCCG    UUC G    CGGGUUGC GGGG U  GAGG GAAC GG CUG A U U
Cordia trichotoma............          CGGGGU     GCGA     G CCCC G                UGAA AGCGG GGGCCUUCCUCUCCC UG CCCCG    UUC G    CGG GCGC GGGG   CGAGG CAAC GG CUU C U UUUCG
Cordia sebestena.............          CGGGGU     GCGA     G CCCC G                UGAA AACGA GGGCCUUCCUUUCCC CA CCCCG    UUC G    CGGAGCGU GGGG   CCAGG CAAU GG CUU C U UUUCG
Cordia subcordata............          CGGGGC     GGGA     G CCCC G                UGAA AACGA GGGCCUUCCUUUCCC CA CCCCG    UUC      CGGAGCGU GGGG   CCGGG CAAC GG CUU C U UUUCG
Cordia nodosa................          CGGGGC     GCGA     G CCUC G                        GA GGGCCUUCCCCUCCA CG CCCCG    UCC G    CGGAGCGC GGGGA   GGGG CAAC GG CUU C U U
Cordia myxa..................          CGGGGC     G AA     G CCUC G                  AA AG G  GUGCCAUCGUCUCCC CGU CCCG    UUC G    CGGAGCGC GGGG   CGAGA CAAC GG ACG CGUAUUU
Cordia collococca............          CGGGGC     GCAA     G CCUC G                  AA AG G  GUGCCNUCUUCUCCC CGU CCCG    UUC G    CGGAGCGC GGGG   CGAGA CAAU GG ACA CGUAUUU
Bourreria huanita............          CGAGGC     GCAA     G CCUC G                        GA GGUCCUGCCUCACC UUG CCCCG    UUU G    CGGUGUGCUUG G U U AGGUCUA  GG CCC C UC
Bourreria succulenta.........          CGAGGC     GCGA     G CCUC G                        GA GGUCCUGCCUCUCC UUG CCCCG    UUU G    CGGUGUGCUUG G U U AGGUCUA  GG CCC C UC
Bourreria petiolaris.........          CGAGGC     GCAA     G CCUC G                        GA GGUCCUGCCCCUCC UUG CCCCG    UUU N    CGGUGCGCUUG G U U GGGUCCA  GGUCC  C U U
Ehretia laevis...............          CGGGGC     G AAU    G CCCC G                     G GUUGG CCGUCCUAUCCCUU  CCCCG    UUCCG    CGGUACG UGGGG  AU AGGUUAC  GA C   CG CUU
Ehretia aquatica.............          CGGGGC     G AAC    G CCCC G                     G GUUGG CCGUCCUAUCACUU  CCCCG    UUC G    CGGUGCG UGG G UAU AGGUUGC  GG C   CG CUU
Ehretia monopyrena...........         GGGGGGC     CUAAGC   GUCCCCC                         GA GGGCUAGCCUGGCCC GG CCCCG    UUC G    CGGAGUGCU G G UUU AGGCAUU  A  CUU  G CUC
Ehretia acuminata............          CGUGGC     G AAC    G CCAC G                        GA GGGCCUGCCUAUCCC UG CCCCG    UAC G    CGGUGUGCCGG G U U AGGCCUC  GGUCC  C U U
Halgania rigida..............          CGGGGU     G AAA    G CCCU G                   UA   A GGCCCUGCCUAAC UUUG CCCC    AU CUAC   GGAGCGCUGG G U U AGGAUAU  GGUCC  C U UG
Halgania andromedifolia......          CGGGGU     G AAA    G CCCU G                   UA   A GGUCCUGCCUAAC UUUG CCCC    AU CUAC   GGAGCGCUGG G U U AGGAUAU  GGUCC  C U UG
Pholisma arenarium...........          CGGGGU     UUAUCU   G CCCC G                AAUA  GA GG CCUUCCUGUCCC CG CACCG    UUC G    CGGAGCACCGG G U C AGGC AGU GUUCCU CGC UGAUU
Pholisma arenarium...........          CGGGGU     UUAUCU   G CCCC G                AAUA  GA GG CCUUCCUGUCCC CG CACCG    UU UG    CGGAGCACCGG G U C AGGC AGU GUUCCU CGC UGAUU
Lennoa madreporoides.........           GGGGU     GUAU     G CCCU                    U G GA GGAC UUCCUGGCCC CG CACUG    UAC G    CGGAGCUUUGG G U C AGUCGAGG AAUCCA A U UGG
Alignment Position...................|150........|160........|170......|180.    |240......|250......|260......|270........|280........|290......|300......|310......|320...
```

Fig. **3-9**. Proposed alignment of helix III and IV, considering secondary structure of the ITS1. The complete alignment is available on request.